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editorial



IMAGINE THAT YOU ARE ABOUT TO buy a car. You have finally decided and all that remains is to choose the make and model. You have read specifications and have whittled the choice down to two. Car A needs a specialized fuel, is about thirty per cent. efficient, needs regular and involved maintenance, uses a troublesome gear shift system, and is a mass of moving parts, all needing to work in perfect unison. Car B can operate on any of a number of fuels, is almost ninety per cent. efficient, has no gears, few moving parts, can drift along at a mile an hour and accelerate like an express train. If Car A is placed head-on against a brick wall, the engine started, the gear engaged, and the clutch released, the engine will promptly stall. Car B can be placed in exactly the same position but has so much power that it will strip the tyres from the wheels rather than stall. Both cars have exactly the same appearance, but Car B has a far greater performance with less operating and maintenance costs. Which would you say is the hands-down winner?

You would be wrong.

Car A is the normal internal-combustion engine type of car we see everywhere on the roads today.

Car B is a steam-powered car which, for some reason, never won the race. Why it never won is an eternal puzzle to anyone who has ever taken the trouble to discover that steam-powered cars were not only manufactured, but actually lead the road transport race at the turn of the century. And rightly so.

Take it any way you want, steam power beats the internal-combustion engine hands down. The efficiency of a steam engine is almost three times that of an internal combustion engine. It has far fewer moving parts, no complex electrical system, fewer components to go wrong and needs a minimum of maintenance. It is relatively noiseless and fumeless, and can operate on a diversity of fuels. Steam cars were being manufactured as late as 1929; in 1933 a steam-powered aeroplane was successfully flown, and in 1935 plans were announced for the formation of a long-distance bus company using steam-powered vehicles. The plans never matured, the aeroplane was never developed and the car manufacturers went bankrupt. Steam power, for road transport, seemed to have finally given up the ghost.

Why?

One explanation is that, in 1908, the self starter which took the work and danger out of cranking a car was invented. The flash boiler, which enabled a steam car to build up a full head of steam within two minutes at the turn of a switch, came later. Motorists, notorious for their impatience, turned to the easy, uneconomical and power-wasteful internal-combustion engine because they couldn't tolerate the thought of waiting those two minutes. As an explanation, that is as weak as claiming that "vested interests" stood to gain more by the development of the internal-combustion engine than of the steam car. Weak, because at that time motoring was still in its infancy and the vested interests weren't as "vested" as they are now. And two minutes is about the time any motorist has to wait for his engine to warm up from stone cold anyway.

So why didn't the steam car gain favour?

Let us have a little speculative fun. One of the old themes of science fiction is that "we are property," that there are beings watching over us, guiding us, using us, perhaps, for their own ends. Let's take it from there.

Steam power is basically simple, the first lesson, perhaps, in how to industrialize a civilization. But steam power does not require the delicate, precision machining of the internal combustion engine, does not require the complex cracking plants to produce high octane fuels, does not necessitate

the hundred side products which go to make a modern car engine. The chemical and metallurgical research alone must be staggering, not to mention the geological surveys in the search for oil, the new methods found to mass produce precision machinery, the hunt for new, synthetic materials to make a basically inefficient engine efficient enough for world-wide usage. The internal combustion engine has done more than anything else to change the face of the world and the impetus it has given to engineering and kindred sciences is staggering. By developing that source of power, we have learned an awful lot.

But now the wheel is turning again. With the development of atomic fuels, steam or vapour power is coming back into its own. With a continuous, almost inexhaustible, source of heat from a small quantity of fuel, an engine can be built which is almost fool-proof and everlasting. Couple atomic, steam, and electrical power together and what do we get?

A unit, not necessarily a large unit, containing a scrap of atomic fuel, a compact, modernly designed, vapour engine coupled to an electrical generator. The whole could be sealed in a tough container and would deliver electrical power to external terminals. Or broadcast a signal, or

Such a unit would work in almost any environment, in any atmosphere, or in space itself.

I'm wondering just what we'd want such a unit for.

E.C.T.



UNFIT FOR HUMANS

No one liked Selection but everyone had to admit that it was fair. Someone had to leave the overcrowded Earth and how better to choose than by ballot? But that was poor consolation to the losers.

by J. T. McINTOSH

Illustrated by ADASH



HY OPENED HER EYES AND was crying again before she was properly awake, before she even remembered what she had to cry about.

It didn't take her long to remember. That horrible scene last night with Lew had hurt her more than anything else which had ever happened to her.

"You just want a nice, sentimental night out, holding hands," Lew had said bitterly. "Me telling you how wonderful and beautiful you are, you having a good cry. And some day when you want a good publicity story you can get someone to write this up—'The Tears Behind My Smile', by Hy Hendon."

"Please, Lew," Hy had said, crying.

"You always say that. Say please and look appealing and a girl like you can always get what she wants, I suppose. Except this time. I don't feel like being tender and sentimental, and laying my head on your soft breast. Not tonight."

"I shouldn't have seen you at all," Hy had told him, her voice choked with tears.

"Not if you wanted a tender memory," Lew had said brutally. "I'm fresh out of tender memories. I still want you, God help me, if you'll come to Logan with me. Short of that, I'm not interested."

Hy's miserable recapitulation of the quarrel the night before was interrupted by the door buzzer. She remembered hazily that it had buzzed before. That was what had awakened her.

Let it buzz, she thought. It couldn't be Lew. Lew was already on his way to Logan. She glanced at the little clock beside her bed—just after noon. It wasn't Lew, and she didn't want to see anybody else. Even if it had been Lew, she wouldn't have wanted to see him. Not after last night . . .

She had been crying as she'd never cried before, and all Lew said was: "A magnificent act. Some people would say that if you cared as much about me as you're making out by crying like that, you'd want to come to Logan with me."

That was almost the last thing he'd said to her. He'd found just one more bitter, cutting thing to say: "I won't come back with you to your apartment. You're not the only woman on Earth. Thanks all the same for the offer."

Then Hy had turned from him and run away, still sobbing. She knew she would never see Lew again.

And that was their last tender farewell.

The buzzer sounded again, insistently.

Suddenly Hy jumped out of bed. Selection for anyone else was quite final. But Lew . . .

Everything always turned out right for Lew. If a million-to-one shot came up for anyone, it would come up for Lew.

From being indifferent about the buzzing she became frantic with haste in case the caller should have gone before she got to the door. She didn't even pause to snatch up her wrap. She rushed through the apartment like a small hurricane and threw open the door.

It wasn't Lew. It was a young man she'd never seen before. Hy's purely incidental nightdress made his eyes pop.

"Oh—excuse me a second," said Hy blankly. She had allowed herself to become so sure it was Lew who was calling on her; Lew, miraculously reprieved, that when she saw it wasn't Lew, the shock was too great for disappointment. She felt nothing but blankness and emptiness.

Back in a moment with a wrap over her nightdress, she waited for the young man to say something.

He had regained control of himself by this time. "Miss Hy Hendon?" he asked.

Hy nodded.

"My name's Baker—Herb Baker. I represent the AEP. I understand your——"

"What's the AEP?" Hy asked.

"Anti-Exile Party. I understand your fiancé has just been sent to——"

"Not my fiancé," said Hy. "But—oh, well, let it go."

She stepped aside. "Come in," she said. "I don't suppose you came to tell me the AEP can bring Lew back?"

The young man sat uncomfortably on the edge of an armchair which was meant to embrace its client affectionately. He was the kind of intense young man who is always to be found engaged in idealistic and generally impractical schemes. He was eager, shy, incoherent.

"No, Miss Hendon," he said. "Not yet, that is. But we hope to mobilize public opinion so that this inhuman practice of exiling our surplus population to cruel, brutal environments unfit for human beings will be recognized for the sadistic horror it is, and...."

He lost the place. "And we want your support," he concluded weakly.

"You want me to join the AEP?" Hy asked.

"Not only that, Miss Hendon," said Herb Baker, his enthusiasm kindled again. "More than that. You see, you're a showgirl. You're—I mean...." He looked at her, gulped, and lost the place again.

"You want me as part of your publicity campaign?" Hy suggested.

He nodded.

Hy considered it. Publicity of any kind seldom did a struggling

young actress any harm. But she couldn't interest herself in the AEP or anything else just now.

"Look," she said wearily, "leave me a card or something and I'll look you up later."

Surprisingly, Herb stood his ground. "Won't you come to our office now, Miss Hendon?" he asked. "I understand your fiancé . . . I mean your—whatever he was—"

"He wasn't that, anyway," Hy retorted.

The young man blushed scarlet.

Hy relented. "What do you understand about Lew?" she asked.

"Didn't he leave today? We thought we could start our campaign tomorrow with a story about him and you . . ."

The Tears Behind My Smile, Hy thought wryly. The chance had come sooner than Lew could have expected.

Well, why not? She didn't like the idea of making capital out of Lew's Selection, but it didn't matter to Lew now, anyway. And it would be something to do.

She was busy all afternoon with the AEP. There were branches on all the settled worlds, she learned, but it had been decided long ago that the only place where anything significant might be accomplished was Earth.

Hy soon discovered Herb Baker's interest in the AEP and the

reason for his strong feelings on the subject.

Herb was a Selection orphan. When he had been three years old, his mother had been Selected, and had gone to Logan. Herb's father had gone with her.

It was a common enough situation. Corinne Baker had had to go—there was no appeal for her. Bob Baker was quite free. He didn't have to accompany his wife unless he wanted to. Divorce was automatic in such cases. But he had loved his wife enough to prefer Logan with her to Earth without her.

Naturally, Hy was interested in this. Bob Baker had had the courage she had lacked. It was even the same colony, Logan. Bob Baker had had the pluck to go to Logan of his own free will. Twenty years later, Hy Hendon hadn't.

Bob and Corinne Baker must have held long discussions about Herb. He was too young to be consulted. Should they take him with them, or leave him on Earth? Earth was kind to such children. On Earth, Herb would be well looked after. So they'd left him on Earth. Perhaps they'd been afraid that if they took him with them to Logan, he'd blame them all his life . . .

Hy danced at The Fruit Bowl as usual that night. Hardly anyone spoke to her. The other dancers, the hostesses, the musicians, the waiters and the cigarette girls all

knew about Lew. But what could you say to a girl who'd just lost her man like that? It happened all the time.

The next morning, Hy saw the first results of her association with the AEP.

The AEP obviously had plenty of money. All the newspapers carried a block of Hy staring wistfully at the stars (the picture had been taken in a studio, but Hy's tears were real) and the copy that went with it was equally touching.

Every day this happens, it read. Every day wives are separated from their husbands, mothers from their children, young men from their girls. There is no appeal. How long is this inhumanity to continue?

Hy sighed. There had always been bitter opposition to Selection, of course. And there was never any result. Never any alternative. Never any release.

She wouldn't get Lew back. The only way she could ever see him again was to go out to Logan, as Herb Baker's father had done, of her own free will.

And she could never do that.

The days passed like weeks. She hadn't realized how much Lew had meant to her. The AEP campaign blossomed, flowered, and Hy began to be known as the AEP Girl. At first all the pictures showed her dressed in black, sad-eyed, heartbroken. Later, when the public began to grow

tired of this line, the AEP publicity pictures showed her in swimsuits, tights, all kinds of glamorous costumes.

But always the reminder was there—this is a girl who has lost her man.

When the campaign struck the inevitable hitch, AEP had an answer ready. Naturally people said what Lew himself had said: "If she cares so much, why didn't she accept exile to be with him?"

AEP's reply consisted of a clever, shocking, terrible picture. The fact that it was a fake didn't destroy its effectiveness.

Hy was shown, nude but discreetly veiled by shadows, in the grip of one of Logan's fits. Her pose screamed silent agony. Her face, always previously depicted at its loveliest, was now shown contorted in unbearable pain. Her flesh was twisted, ridged, knotted, racked by the torture she was undergoing.

And the caption admitted frankly: *Hy Hendon loves her man . . . but she can't stand this for his sake. These worlds are unfit for humans.*

The campaign began to bear fruit. AEP, which drew funds from thousands of rich men and women who didn't want to be Selected if there was a ghost of a chance of averting it, asked Hy to leave The Fruit Bowl and go to work for them full-time.

But Hy refused to take any money from the AEP.

So they made capital of that, too. They waited for the first allegation that Hy Hendon was making a lot of loose change from the AEP campaign, and pounced on it. They crucified the unfortunate columnist who had dropped the hint, and proved in public that Hy Hendon had never received a cent from the AEP.

In other circumstances, Hy would have been delighted at the publicity she was getting, even though it wasn't in the sphere in which she wanted it. As far as her professional career was concerned, she was still a humble dancer in a night club.

But somehow her new fame meant nothing. She went out on a couple of dates, and her escorts completely failed to help her to forget Lew. On the contrary, they made her miss him more.

She settled down all right. She got over the pain of losing Lew.

But she realized for the first time, at twenty-two, that unhappiness wasn't, after all, a temporary thing, something you experienced for a few minutes or hours, or days after something had gone badly wrong.

Just as you could be always more or less happy, you could be always more or less unhappy.

You could wake up not expecting much from the new day and not getting much from it. Instead

of wishing things would go on and on and on, you could find yourself wishing they'd stop, wishing they'd be over so that you could go home and try to sleep, probably without much success. You could ask yourself time and again: "Why am I doing this, anyway?" and get nothing but the cheerless answer: "It passes the time."

That was all Hy ever got out of the AEP publicity campaign.

She went out once with Herb Baker, and gave him a wonderful time. She failed to do the same for herself. Poor Herb, she thought. Poor Hy.

Then, about a month after Lew had gone, she had two visitors. They were very apologetic and polite, and they didn't stay long. They left her dazed rather than angry, frightened, or miserable.

They were POs, and they came to tell her she'd been Selected, too.

Hy thought about it and thought about it, but found she just couldn't feel anything at all, happiness, misery, or fear.

She'd have gone to Logan with Lew if she'd had the courage. She'd been miserable ever since, partly because she'd lost Lew, partly because she could have gone with him if she'd been brave enough.

Now she had no choice. She had to go—and, of course, she would go to Logan. They'd allow that. They nearly always did let people go where they wanted to go.

She had three months left to spend on Earth, if she liked. How this would affect the AEP campaign she didn't know. She rang up the office and asked them.

The man at the other end, Hollies, hesitated. "I'm sorry, Miss Hendon," he said automatically. "We'll have to think about this. You're still willing to help us?"

"If it'll do any good," Hy said.

"It might. We'll have to think about this."

"I'll come in and see you tomorrow," said Hy, and rang off. She wasn't very interested, anyway.

The job at The Fruit Bowl no longer mattered at all. But, since she'd been on the point of leaving for the club, she went anyway.

Nobody there knew she'd been Selected. Nobody noticed anything different about her, at first. She'd been silent and withdrawn for weeks.

In the first number she got off the beam completely, going automatically into a routine which had been cut weeks ago.

Nobody said anything to her afterwards. Everybody had fallen out of the habit of saying anything to Hy.

In the second number the top part of Hy's costume, carelessly tied, came unstuck and fluttered slowly to the floor.

Hy had a brainstorm. On a wild impulse she whipped off her

slit skirt, too, posed seductively, and bowed gravely to the cheers and whistles. The band faltered, the other girls bucked like wild horses, and there was sudden pandemonium.

Hy blew a kiss around the tables and glided off. The lift she got from her moment of rebellion lasted less than five minutes.

It wasn't that kind of show, and Hy knew as she waited in her dressing room that *that* wasn't going to pass without comment.

She wasn't in the least surprised when she was summoned to the manager's office. It was only when Bill Holweston got up without a word and went out, leaving her alone with a complete stranger, that Hy became at all interested.

"I'm Eric Dakar," the stranger said, and paused in anticipation.

"The Eric Dakar?" Hy asked, on cue.

He nodded. He was a heavy, fleshy man with a big nose and a very white dress shirt.

"I won't waste time, Hy," he said. "I can find a spot for you in my new show. What do you say?"

Hy couldn't help it, she had to laugh. She laughed with genuine enjoyment for the first time in months.

For six years she'd been waiting for this chance. It came just four hours too late.

"No doubt you'll share the joke with me, Miss Hendon," said Dakar very politely. His eyes

had gone hard. Eric Dakar wasn't used to being laughed at.

Hy fought for control of herself. After all, she had three months. Could she take her chance for three months? Three months on Broadway would always be something to look back on—even on Logan.

The first thing was to find out if the offer was still open—for three months. She couldn't hide the fact of her Selection. The names would be published the next day.

"I'm sorry, Mr. Dakar," she said. "I've been hoping for this for years. Only . . . today I was told I'd been Selected."

She watched him closely, but learned nothing from his manner. He didn't say anything, either.

"Can I take the job for three months?" she asked.

He looked at the ceiling, considering. Hy knew he was thinking of the publicity angle. He must have had actors and actresses Selected before—principals, not just chorus girls and dancers. Would people flock to see someone who had only a month or two left on Earth?

"Sorry, Hy," said Dakar. "Sorry, kid. For three months it wouldn't be worth it. If you were a star already, the customers would rush to see you for the last time. But a newcomer . . . people feel it isn't worth getting

used to a girl who isn't going to be around long."

Tears sprang to Hy's eyes. She turned away blindly and went back to her dressing room.

She didn't even ask something she wondered about for the rest of her life. Was Dakar there to see her because she'd become famous as the AEP Girl? And if she had given her usual performance, if she hadn't performed that rebellious strip-tease act, would he have been sufficiently impressed to make his offer? Was it only because she'd been Selected, and no longer cared what she did, that she'd been offered this chance she'd been waiting for all her life?

She never knew.

The next day, with the routine announcement of the Selection names, there came an announcement that wasn't routine.

Previously seven per cent. of the Earth's population had been Selected at some period in their lives. Now it was to be fourteen per cent.

There was nothing but that bald, brief statement.

The newspapers went wild over it. Where would this end they demanded? First one in fourteen, then one in seven . . . how long would it be before every second person born on Earth was sent to cruel exile?

Hy found she couldn't care much. Seven per cent. or fourteen

per cent., she was one of them and that was that.

The AEP started a new and much more violent campaign, of course. For two days Hy featured prominently in it.

At the end of two days it was clear that Hy was no longer a trump card to the AEP.

People had been interested enough in Hy Hendon, the AEP Girl, when it had been her lover who had been Selected, not her. But nobody ever knows exactly how the public will react. Now that she had been Selected herself, interest in her suddenly and inexplicably waned.

Everybody had friends and relatives who had been Selected. You forgot about them, you regarded them as dead. You had nothing more to do with them, in a superstitious hope that by cutting yourself off from them you cut yourself off from what had happened to them. You didn't talk about them, in case what you said about them should one day be said about you.

That must have been what happened to Hy Hendon, the AEP Girl. She was suddenly of no more use to the AEP, and they told her so, kindly, but quite frankly.

"I understand," Hy sighed. "You need a new AEP Girl now. I'm last season's model."

She went straight from the AEP office to the Selection Bureau and

arranged to go to Logan. There was a ship in three days. She said she'd go on it. The clerk looked surprised but asked no questions. People often cut short the waiting time, preferring to get it over with instead of hanging on on Earth till the last permitted second.

When she got back to her apartment Hy found a note from Eric Dakar. It read: *Can't give you spot in show but if you like to come back to New York with me I'll show you a good time for a month or two. Eric.*

Such proposals to girls who'd just been Selected were common. They were usually accepted. The impulse to paint the Earth red before leaving it for ever was a natural one.

Hy tore up the note and burned it.

II

LEW HAD GOOD EYES. HE SAW THE tender before anyone else did, dropping from the ship a thousand miles up. Spaceships never landed. Assembled in space, they stayed there all their working lives. Only the tiny, cramped, uncomfortable but immensely powerful tenders were built for that first or last thousand miles between the surface of a planet and empty space.

About forty people were waiting on the field. The lists of people

due from Earth were always eagerly scanned—no one ever went to a planet where he knew nobody. These men and women had come to meet ex-husbands, ex-wives, former boy friends, brothers, sisters, sons, mothers, cousins.

Lew was waiting for Hy. Hy, who could have come with him to Logan four months before of her own free will, but hadn't. Hy, who now had no choice.

He glanced at his watch, then strolled to one of the benches round the field. There were benches everywhere on Logan. Nobody looked at him. On Logan you didn't look at people in the grip of a fit. Your own turn was coming too soon.

Lew sat down and waited. He glanced up at the tender, still probably a hundred miles up . . .

The tender lay on the field, the airlock just opening. Lew got up and stretched himself. He had long ago got over the aftermath of the fits which made some people's lives continuous hell. When they were over, they were over, as far as Lew was concerned.

He hurried across to the tender.

Hy came out, blinking in the bright sunshine. Hy Hendon, five feet nothing but so beautifully proportioned she looked tall. She was wearing a bright yellow dress which caught the sun and all the eyes around.

Lew didn't go to her; he waited for her to see him. When she did she ran to him and threw herself in his arms.

So that was how it was to be. The last few months were to be forgotten. Lew had no complaints.

"Hi, Hy," he said.

"Lo, Lew," she replied. And they laughed breathlessly.

It was a moment for lightness. The more serious matters could come later,

"I'm disappointed," she said. "I'd remembered you as quite good looking."

"And you've put on thirteen pounds," said Lew.

"I have not!" Hy exclaimed indignantly.

"Yes, you have. Let's find a scale and prove it."

"Oh!" Hy grinned. "You mean gravity's different here."

"Thirteen per cent. more. That's thirteen pounds, for you."

"So you remember that."

"I remember everything about you. Let's go, Hy. They'll unship your things and keep them here for you."

"Where are we going?" Hy asked, falling into step with him obediently. Though he was ten inches taller than she was, she had the long, supple legs of a dancer and kept up with him without the slightest trouble. She didn't seem to notice the extra gravity, either.

"To see the world," said Lew.

She stopped, puzzled. "The world? Oh, you mean *this* world."

"The only one for us now," said Lew.

He spoke lightly enough, but the gaiety of their meeting suddenly dissolved.

"Lew," said Hy, catching his arm, "when will it hit me first? I mean——"

"In about half an hour," he said. "The first one's bad. After that they're all the same."

"When was . . . when was your last?"

"While the tender was coming down. I didn't see it land."

"But you're all right now." Hy looked relieved. "It can't be so bad."

Lew said nothing.

"You'll watch me, won't you?" Hy asked. "See that I don't choke or anything?"

Lew nodded. There was no risk of her choking, but he knew better than to explain what the fits were like. Hy must have read about them in the ship's library. No explanation could give you any idea what the fits were really like.

"What causes the fits, Lew?" Hy asked.

Lew stopped. "You really want to talk about it? You wouldn't rather just look around, and see what the fits are like when they come?"

"I'm not asking you to tell me what they're like. I asked what causes them?"

"Oh, that." Lew paused. He was no scientist, and wasn't very interested in science. Hy had always had a mathematical, scientific streak in her. He remembered an occasion when she had fixed a car

"Well," he said, "before we left Earth we knew all about a hundred-odd elements and assumed that wherever we went we'd find nothing we didn't know about already. There might be elements further on, but they'd be unstable anyway and wouldn't occur naturally. Wherever we went we'd find hydrogen to uranium, or not quite to uranium, and no matter what strange and wonderful things we found, at least we'd know about the things they were made of. We assumed that."

"And it was so," said Hy. "Wasn't it?"

"It was so, yes. Not only that, but many planets had oxygen atmosphere we should have been able to breathe quite easily."

"Should have been?" Hy queried.

Lew nodded. "You're being slowly poisoned now," he said casually.

Hy jumped.

"There's nothing you can do about it," Lew assured her. "But that's what causes the fits. The air you breathe, and the food you

eat, and the things you touch, the clothes you wear, the buildings you enter, the bed you sleep in, the water in which you wash. Why don't you know this anyway, Hy?"

She hung her head. "I should have known. But I was never interested in other planets. And when I tried to find out things in the ship's library—it was all advanced stuff. No First Steps in Planetary Conditions. Go on, Lew. What's wrong with the air and the water and everything else here?"

"Nothing," said Lew, "except it's made out of Logan's elements and not Earth's. There's a difference, Hy, a big difference—only we don't know what it is. We haven't the faintest idea. Take a hydrogen atom. It's got the same form, the same atomic weight—as far as our present scientific knowledge goes, there's no difference between Earth's hydrogen and Logan's hydrogen. Except when they try certain very complicated tests, then Logan's hydrogen sometimes acts a little differently.

"But that's the reason for the fits, Hy—the fits here, the sickness on Tomotan, the emaciation on Bitl, the toothache on Hapon, and all the other things on all the other worlds. The very elements of which every system is made up are different. The same, but different. The same in a laboratory, but different to the human body.

And it rebels—regularly or constantly."

They were walking through a particularly beautiful valley toward the city at its far end, but Hy hadn't even noticed her surroundings. Although her eyes had followed the three or four cars which had flashed past them going from the spaceport to the town, she hadn't seen them.

"You mean—if we could eat food from Earth and breathe air from Earth, we'd never have the fits at all?" she asked.

Lew nodded.

"Then why don't they——"

"Theoretically, yes. Practically, it doesn't work. It's been tried—not here, but on some of the other worlds. It can't be done, Hy. Not only do you have to breathe air from Earth, you mustn't let it be contaminated by anything from the planet you're living on. You can't manufacture air from the local elements. And what's always happened is that the people living in these spaceship conditions have been all right for about three days, then the thing breaks down. Sometimes they've found out why, sometimes not."

"Then there's no . . ." Hy began. Her eyes went wide. "*Lew, it's coming!*"

Unhurriedly, Lew caught her and laid her on the grass by the side of the road. Before her back touched the ground she had

ceased to be aware of anything but pain. She tossed about, breathed in gasps, seemed to be trying to escape from her own body. Her eyes were open, but they were seeing nothing.

Lew loosened Hy's yellow dress; not that it made the slightest difference to Hy at the moment. She might tear it, however, in her paroxysm.

No one on Logan ever felt the slightest sympathy for anyone else having a fit. One couldn't afford to. It was bad enough bearing one's own recurrent agony without sharing anyone else's. This wasn't selfishness, it was merely rational acceptance of the conditions of living on a planet where ten minutes out of every ninety were excruciating agony.

Lew sat down on the grass beside Hy. He didn't look at her. He didn't touch her. There was nothing anyone could do.

At last it was over. Hy's head turned weakly and her eyes met Lew's. She didn't try to move.

"I can't go through that again," she said in a tired, defeated voice. "They were right. This world is unfit for human beings. We were never meant to live here."

Lew said nothing. There was nothing to say.

Hy had just had her first fit. She'd have eighteen every day for the next sixty years. Eighteen times three hundred and sixty-five

times sixty. About four hundred thousand fits.

He stood up and bent to help Hy to her feet.

"You can't just get up after that and walk on," she exclaimed.

"You have to," Lew said soberly. "Might as well get used to it, Hy."

She sat up and fastened her dress. "Now I know the AEP is right," she said passionately.

"What's AEP?"

"Anti-Exile Party. They're campaigning on Earth to have Selection stopped. They say it's inhuman to send people to worlds like this."

"Oh yes," said Lew. "There's a group here, too. They're wasting their time."

Hy took his hand and got to her feet. She was surprised to find she felt perfectly normal again. "What do you mean?" she demanded. "It's got to be stopped. It is inhuman to send people to this."

"It's inhuman to kill people in wars," Lew shrugged, "but that's about the only alternative. There's no room on Earth, Hy."

Hy shook her head. "They'll have to find some other way. People won't stand this new fourteen per cent. Selection."

"What fourteen per cent.?"

She stared at him. "Mean you haven't even heard? Selection used to take seven per cent. Now it's fourteen. I was one of the extras, I guess. I can't understand why you haven't read about it."

Lew grinned. "We can't understand why people come here and don't know anything about Logan."

Hy nodded reluctantly. "I guess that's so. You don't find out about things that don't concern you. And it's nothing to you that more people are being Selected."

They walked on. Now Hy was beginning to take an interest in her surroundings. "It looks all right," she said grudgingly.

"It's beautiful," said Lew. "Quite as beautiful as Earth, in a different way. Far more beautiful than an Earth choked with cities."

"What are you doing here, Lew? Have you got a job?"

"Oh yes. I'm a gambler."

"A gambler! What about your painting?"

"Painting doesn't pay. Not here. Anyway, I had to change my job when I knew you were coming."

"Why?"

"To be near you. You'll be working at Mac's Saloon. So I took a job there."

Hy frowned. "How do you know I——"

Lew took her arm and put his round her. "This isn't Earth, Hy. Tonton is a frontier town. There's no theatre, no vaudeville. The only thing there is Mac's Saloon. It's a place to drink, eat, gamble, see a girl show. If you thought The Fruit Bowl was the bottom—wait till you see Mac's."

He turned his head and grinned at her.

"I don't have to work there, do I?" she asked. She didn't seem to like the sound of Mac's Saloon.

"No, but I guess you'll have to work somewhere for a while, anyway," Lew said. He skirted the question whether she was going to marry him or not. There would be plenty of time for that. "And if you want to stay in show business, Mac's is the only show business there is."

"What's the show like?"

He looked down at her again, remembering The Fruit Bowl's subtle lighting, first-class band, men and women in immaculate evening dress, clever, sophisticated cabaret. "Well, it's not quite what you've been used to," he said.

Hy sighed. "Oh, well, at least I'll soon be running things there," she said. "Shouldn't be long before I'm the nearest thing to a star this place can hold. If I can't be a star in Tonton——"

She stopped when she saw Lew's expression. "What's wrong?"

"Know who the head girl at Mac's is?" he asked.

Hy shook her head.

"Cheryl Lindsay," he told her.

Hy's reaction was about what he'd expected. Cheryl Lindsay had been a screen star. Everybody on Earth had known her name five

years before. Now probably she was three-quarters forgotten.

And Hy wasn't delighted to find that she'd be working with a girl of Cheryl Lindsay's experience. Even on Logan, even at Mac's Saloon, she was still to be a second-rater.

"Excuse me," said Lew, and disengaged her arm. They had reached one of the benches that were dotted along the road. He had time to sit down, loosen his belt and wink at Hy before it got him.

III

BETWEEN HY AND CHERYL LINSAY it was war from the start. Discovering that Hy had a natural delicacy and taste which made her hate doing any act that she felt was crude, Cheryl put her in one of the crudest acts ever seen, even at Mac's Saloon. Then when Hy, like the trouper she was, threw herself into the act and aroused wild enthusiasm among the customers, Cheryl took it off. And when it became impossible to pretend any longer that Hy had no talent, Cheryl made her take rehearsals and always changed the routines later to show who was boss and make the other girls resent Hy.

"Tonton isn't the only town on Logan," Hy said to Lew after a

few weeks of this. "Can't we go somewhere else?"

Lew shrugged. "Sure, if you like. But this is the best there is, Hy. Compared with the rest of Logan, Tonton is high-powered civilization—and Mac's is Broadway."

"I'm going to get back to Earth," said Hy obstinately.

Lew shrugged again.

"It's not just the fits," Hy insisted. "If Earth had the fits and Logan hadn't, I'd still want to get back."

"Everybody wants to go back," said Lew gently.

"But nobody does anything about it. Nobody except the AEP."

"Haven't heard much from Earth about them lately," Lew commented.

"Would you expect to?" Hy demanded bitterly. "Would they tell us here about demonstrations on Earth against exile? Anyway, it's not just what happens on Earth that matters. We've got to fight here. You know that one person in six belongs to the AEP here now?"

"Listen, honey," said Lew, "I'm not saying I wouldn't go back if I could. Of course I would. But the trouble with this AEP, both on Earth and in the colonies, is that it's trying to stop Selection without offering any other solution. It doesn't make sense, Hy. It's no use campaigning for something that's impossible."

"We've got to make it possible, that's all."

"How? Earth's just one big dormitory as it is. There's hardly any Earth left."

"Then there'll just have to be more birth control."

"Sterilization?" Lew asked wryly. "That's what it'll need."

"I don't know what the answer is," Hy said angrily. "But there's got to be one, Lew. We were never meant to come out here into the galaxy and live on other worlds. Ever seen a baby born here? I saw one just a few minutes old the other day. After half an hour the poor little thing had its first fit. And the next, ninety minutes later. Human beings don't evolve to conform with the conditions here—they can't. We're strangers and our children are strangers, and our children's children will be strangers——"

"Nobody knows that yet."

"Don't give me that," said Hy derisively. "Think of Tractor. Four generations, and the fourth isn't any better adapted to the conditions than the first settlers."

Lew couldn't find any answer to that.

"We were meant to live on Earth," said Hy. "Everybody born there has a right to stay there. And I'm going to fight for it. If you won't . . . I think I know a couple of people here who will. I'm going to see them."

"Who?" Lew asked.

"Never mind." She stormed away to drill the girls at Mac's for two hours, after which Cheryl would come along and change everything. Between them Hy and Cheryl were turning the Mac's Saloon girls into a team that wouldn't have disgraced Las Vegas. Cheryl had been a star who had happened to have talent too. And since Hy had never been a star, nobody was surprised that she had talent.

Lew sighed as he watched her go.

Hy had intelligence, if she'd only use it. That was the trouble with women, even intelligent women, Lew reflected. They couldn't see anything in the abstract. They saw everything as it affected themselves, their husbands, their children, the Joneses, the Joneses' children . . .

Perhaps he'd have understood Hy's angle better if things on Logan had worked out worse for him. Actually, they were working out very well. He'd never even considered putting his luck to work for him on Earth by being a gambler. The profession there was too specialized, too professional. In Tonton things were easier. He played for the club, sharing his winnings and his losses with it. The play was practically honest. It could afford to be. Mac, who was Byron Levitski, tried to balance things so that the food and the liquor and

the tables and the floorshow bolstered each other without any one of them getting too big for the others. He was naturally inclined to be greedy but he was also naturally inclined toward caution. Lew, who practically ran the gambling side of the Saloon by this time, had always known exactly how far to push things—how far to bank on his luck, how much to risk, how much to win, how much effort to put into it. Levitski knew this and trusted Lew a little farther than he could throw him.

Lew, therefore, was in a good spot and knew it. He felt no urge to join the Tonton branch of the AEP and listen to impassioned speeches.

On her next free day Hy went to Enderton, two hundred miles south of Tonton, to see Bob and Corinne Baker. The journey by plane took less than an hour. In many ways Logan was backward, but air transport wasn't one of them.

She had sent a note saying she was coming. Bob Baker met her at the airport in the hospitable, friendly way of people living in frontier towns.

"So you knew Herb, Miss Hendon?" he said. "Corinne and I will be glad to hear all you can tell us about him."

Hy understood whenever she saw him how it had come about

that Bob Baker had shared his wife's exile twenty years before. He was a big, placid, laconic man who probably hadn't even announced that he was going with her. When he'd heard of her Selection, he'd probably merely nodded and said: "Are you fixin' to take Herb with us?"

Corinne, whom Hy met soon afterwards, was like Bob in her matter-of-fact acceptance of things, but instead of being slow and economical with words, she was very quick and alert and talked a lot.

"Were you Herb's girl-friend, honey?" she asked.

"No, nothing like that," said Hy. "My man's here on Logan."

"Did he come with you or you with him?" Corinne inquired curiously.

"We were both Selected," Hy said. "No, I met Herb in the AEP campaign. He feels very strongly about it."

Bob and Corinne exchanged glances. "Does he now?" said Corinne. "Well, I guess that's natural."

What Hy told them about Herb was almost the first information they'd had about their son in twenty years. There was little communication between individuals on Earth and in the colonies. This wasn't because the cost was prohibitive—there was a micro-film service which was quite cheap—but because people in the

colonies and people on Earth didn't have much to say to each other. Most letter-writing is based on the probability of the correspondents seeing each other sooner or later.

"I did all I could to help the AEP on Earth," Hy said. "And I'm doing all I can here. That's partly why I came to see you. I knew you'd feel as I do about it—as Herb feels about it."

"Not so fast, Hy," said Bob slowly. They had reached the Christian names stage by now. "What Herb thinks is his own affair. What you think is your own affair. But it's only fair to tell you Corinne and I don't feel the same way."

"You're against the AEP?" Hy exclaimed incredulously.

"Not exactly that, honey," said Corinne. "But to tell the truth, we think it's silly. We can't—oh."

She sat down. Simultaneously, Bob dropped on the sofa. And for the next ten minutes they writhed in the grip of the fits.

Hy stood frowning, waiting. Her next fit wasn't due for twenty minutes.

Drugs could delay or advance the fits, and most people had to adjust theirs periodically for convenience. Businessmen and their secretaries, for example, generally arranged to be incapacitated at exactly the same time, so that there was only the one unavoidable

wastage. Shop assistants, on the other hand, arranged their fits at different times, so that there was always someone on the job. The girls at Mac's, Cheryl and Hy included, kept their fits exactly synchronized so that when any of them could go on they could all go on. Lew, who could take time off when he liked, had fixed his fits at exactly the same time as Hy's.

When at last Corinne's agony was over she sat up and murmured: "What was I saying? Oh yes, we can't see the sense in the AEP demonstrations. What good can they do? Earth can't make itself any bigger."

"You sound exactly like Lew," said Hy bitterly.

"From what I hear of this Lew," said Bob thoughtfully, "I guess I'd like him. I'll look him up next time I'm in Tonton."

"Do you mean you just don't care?" Hy demanded.

"Honey, every three seconds a child dies somewhere in a street accident," Corinne said. "I care about that, but what can I do about it?"

"That's just it!" Hy exclaimed. "We're trying to do something about it. We——"

Corinne shook her head. "What you're doing is like saying it's shocking that a child is killed every three minutes and it ought to be stopped. Selection can't be stopped, Honey."

"We're going to stop it," said Hy vehemently, "no matter who we have to murder to show we mean business."

"Two wrongs don't make a right," said Corinne sententiously.

Hy realized she was banging her head against a brick wall. She stayed with the Bakers a while longer, told them more about Herb, about herself, about Mac's Saloon and about Lew, but she felt they'd failed her, just as Lew had failed her.

It was strange that when she finally found an ally it was Cheryl. When they found themselves on an AEP committee in Tonton the ice between them began to crack for the first time.

Sometimes, however, ice cracking is much more dangerous than solid ice that stays frozen.

Cheryl called Lew into her dressing room one night. She often did that. Though she had failed in her object because Hy knew perfectly well Cheryl did it to upset her, it had become a habit. Cheryl liked Lew.

Cheryl was a redhead, and if her figure wasn't as good as Hy's, ten billion people on Earth had had no complaints. Her costume was voluminous but diaphanous. Cheryl's tactics were to dress subtly herself and not allow anyone else to do the same. She always wore much more than Hy, and concealed less. Cheryl always looked

like the principal, Hy a chorus girl.

"Lew," she said, looking at him in the mirror, "why don't you marry Hy and take her out of here?"

"Because she's more concerned about getting back to Earth than about me just now," he said frankly, "and I'm waiting till it's the other way round."

"You can't blame her for wanting to get back," Cheryl said, forced into defence of Hy.

"No, but I can blame her for thinking she's got any chance," Lew retorted.

This hit Cheryl as well as Hy. "I'm not going to stay here for ever," she said, exactly as Hy would have done. "But that's not what I want to talk to you about. Lew, there's no room for Hy and me both around here. Take her away."

Lew shook his head. "Hy makes her own decisions," he said.

"Take her away, Lew," said Cheryl, with a significance that hadn't been present the first time.

"Is that a threat?" Lew asked.

"It's a warning."

"From you personally?"

"Hell, can't you take a hint without a signed statement? I like you, Lew. You're supposed to be a lucky guy. A lucky guy is a fellow who can read the signs. Marry Hy and take her away from Tonton."

Lew saw he wasn't going to

get any more out of her. He moved to the door. "Thanks, anyway," he said, "for the signs."

Cheryl was right, a lucky guy was a fellow who could read the signs. Lew was reading some of them.

There was the way people started complaining about the fits, for example.

When something happens only occasionally, and irregularly at that, people spend a lot of time complaining bitterly about it when it does. But there was no point in complaining about the fits. They weren't fun, but they had to be borne.

When people started complaining about them, it meant they were beginning to think the fits didn't have to be borne . . . that there was a way out.

Then there was the strange slump in real estate.

Real estate is the best proposition on any new world for the investor with a touch of genius. Land worth a dollar an acre can very quickly jump in value to ten thousand an acre. Or it can stay at a dollar an acre with no takers.

Now no major deals seemed to be taking place. Nothing was happening. That was another sign. People don't buy or even sell land when there's a possibility of big changes in the circumstances—or when they think there is.

Just in case Cheryl's warning or threat meant anything, Lew reported it to Byron Levitski and to Ned Bjornson, who was the Tonton police chief. He didn't try to make much of it. He simply told them that there was a threat to Hy and perhaps himself, and got that established before it became more than a threat.

There was one sign which Lew missed completely.

Werman Lord, Earth's first Colonial Agent, was due to make a short visit to Logan. And though the AEP was arranging demonstrations to coincide with his visit, they were singularly casual, halfhearted arrangements—as if nobody really cared.

This was obviously untrue.

The night before Lord arrived, Lew and Hy had a quarrel comparable only with that last night Lew had spent on Earth—only this time it was Hy who was angry and bitter, not Lew.

They were in Hy's dressing room with twenty minutes to go, including a fit, before Hy went on. She was all ready, in a costume consisting principally of three fig leaves.

"You won't help us," Hy complained. "You say we're fools, you won't have anything to do with us—but if we do win our fight, you'll be ready enough to take advantage of what we've done."

"Naturally," said Lew. "Why not?"

Hy spun round and glared up at him. "I could hit you," she exclaimed.

"Go ahead. I won't promise not to hit back."

Hy breathed heavily.

"Listen, Hy," said Lew quietly. "Everybody knows Selection is a poor solution, but the only one there is. Earth knows it, we know it. What you people are hoping, though you won't admit it even to yourselves, is that you'll be able to make such a nuisance of yourselves that some of you will be allowed back to Earth. You and Cheryl and Tom Paterson and that other loud-mouth—Bill M'Kinlay. And you know, too, that that would only mean that for every one of you who was allowed back, somebody else would have to be sent out here. You pretend you're fighting Selection, but you're out for yourselves all the time. You——"

"That's a despicable thing to say," Hy breathed.

"It's the truth."

Hy couldn't contain herself any longer. She threw herself at Lew, not quite certain what she meant to do, but wildly intent on doing it with tooth and nail and anything else she could think of.

Lew tried to hold her off, but Hy, though tiny, was almost as strong as he was. In the end, losing his temper completely, he

let her have it at a point equidistant from all three fig leaves. She collapsed like a burst balloon.

Lew hauled her up again and sat her on her dressing table. "You're not hurt all that bad," he said, "and you're tough. Hy, I love you. Will you marry me?"

"Never," she hissed, massaging her diaphragm. "You're a brute, Lew. A fool and a brute and a——"

"I know," said Lew. "A lot of people complain about it."

Suddenly Hy slid down in front to her dressing table, threw open a drawer and came up with a tiny gun in her hand.

"Get out!" she spat at him.

Lew jerked back in shock. "Like that, is it, Hy?" he said.

"Just like that. I never want to see you again. And you can quote me."

"We fought once before," he reminded her, "and regretted it."

The gun never wavered. "I told you to get out."

Lew went.

The door had hardly closed behind him when, unexpectedly—for she had completely forgotten a fit was due—Hy felt the familiar screaming of every nerve.

This time she fought it. Hardly anybody ever did that, but it wasn't quite impossible. You could force your eyes to see and at least some of your tortured muscles to obey you. Pilots caught thus in sole charge of a plane

because of some unforeseen accident had managed to keep the plane in the air, sometimes. Nobody had ever managed to land. Drivers of cars got them to the side of the road and stopped them.

Hy told herself the fits didn't exist. If she couldn't beat them by going back to Earth she'd beat them by ignoring them.

She stood up.

Desperately, with savage obstinacy, she tried to walk. The room spun about her and red clouds obscured most of it. There was no corner of her small body which wasn't a fire of agony. Women who had had children on Earth without the relief of drugs had said that though childbirth went on longer, it was a joke compared to a fit on Logan.

Hy stood and tried to walk. She couldn't. She managed to stay on her feet, her very sanity tottering with the effort.

She wouldn't be beaten. There must be a way. Maybe this was the way.

At last she took a step—and, of course, fell flat on her face.

Face down on the floor, Hy returned to sanity. Fighting a fit was like flinging yourself in front of an eighty-miles-per-hour express to stop it. She gave herself up to the pain in the customary manner.

When she came out of the fit,

eternities later, Hy had reached a decision.

It couldn't be put accurately in words, but if she'd had to express it, it would have been something like this:

I must leave here or die. I'll do anything to get back to Earth. Lew's right—I don't care if somebody else has to come out to replace me, I'm going to get back. If I can corrupt some official I'll do it. If I can get back by bribery, prostitution, or murder, I'll get back.

I can't live on Logan any more.

Outside the door, Lew picked himself up and went back to the tables, whistling. The fit had made him forget how bitterly he and Hy had quarrelled.

IV

WERMAN LORD WAS TALL, HAD iron-grey hair and was most impressive in his manner. He always sounded as if he was saying something, even when he was only talking.

"Logan," he declared ringingly, through the public-address system and by radio to every corner of the planet, "has a great future to look forward to. Colonists will be arriving more rapidly now, and plans of a far-reaching nature have been formulated to make this world second only to Earth in

economic and political importance . . .”

Probably he was delivering the same speech at all the colonies on his itinerary. He didn't have much to say, but he made the most of it.

Lew was there, not because he had the slightest desire to hear the First Colonial Agent speaking, but because he didn't want to miss any demonstrations the AEP might make.

These were surprisingly feeble. Men carrying banners had been jostled aside by the crowd. There wasn't room for banners in Tonton's small square, packed tight with thousands of people who had come to see what a First Colonial Agent looked like.

There was another thing which interested everybody. Lord was due to spend four hours on Logan. Everybody was curious to see how he liked Logan's fits. He'd have two—three if he didn't hurry.

One of the banners read: *Exile is inhuman*. Another declared: *This world is unfit for humans*. A third begged: *Hear our prayer, O Lord*. A long streamer exhorted everybody: *Fight for the right to return to Earth*. Smaller banners said simply: *Earth is our home*.

But these banners were stacked so far from Werman Lord that he could easily ignore them, and was doing so.

There had been a rumour that the Mac's Saloon girls would

appear on a float plastered with AEP slogans. It was no more than a rumour, apparently.

Lew had meant to bring Hy with him, but she had locked her door and refused to see him. He wasn't unduly perturbed. Hy would come to her senses sooner or later.

Cheryl had seen him trying Hy's door and had remarked tentatively, obviously fishing: "Somebody's going to lose somebody if she isn't careful."

Lew had shaken his head. "No, I'm not playing the glove game," he told Cheryl. "Not this time." "What glove game?"

"You find one glove. It's no use without the other, so you throw it away. Then you find the other one. Now you haven't the first one, so you throw the second one away. Then you find the first one . . . That's why nine out of ten love affairs break up, Cheryl."

"Thanks for the lecture," Cheryl retorted. "I take it you mean that whenever Hy decided she wants you, you will be patiently waiting?"

"That's right," said Lew. "Old faithful, that's me."

"Some girls have all the luck," said Cheryl unexpectedly, and slammed the door.

It would be nice, Lew thought as he stood in the square, not listening to Werman Lord, to get the old Hy back. She seemed to

have lost her sense of humour here on Logan. He remembered the fun they used to have clowning—Hy had always taken the leading part. She'd hardly smiled, except professionally, for weeks.

Suddenly a woman screamed. Lew looked up in time to see the bomb sail across the square to drop where the crowd was thickest.

That first scream was taken up by hundreds of women and scores of men. Somehow, everybody knew it was a bomb.

Werman Lord's voice stopped in the middle of a word.

The bomb landed and disappeared in the crowd. Nothing seemed to be happening. Then everybody near it was coughing, clawing at his eyes, fighting to get away.

In a moment it was a mad stampede.

Lew, who had been on the edge of the crowd, having made no effort to get close to Werman Lord, made his escape easily. He found a doorway that looked safe and waited in it, watching the mob stream past him in panic.

That was very foolish of the AEP, he thought. In this crush many people were going to be injured and a few killed. With two-thirds of the people on Logan wavering, wondering whether to support the AEP or not, a demonstration like this, which must inevitably turn thousands of

people against the AEP, was worse than foolish, it was crazy.

Lew wondered if Hy had known about this.

Already the square was very nearly clear. There had been only one bomb. Lew hadn't had a whiff of the gas, and he suspected that neither had many of the crowd who had stampeded away in panic.

Lew counted fourteen people still in the square—some of them trying to move, some quite still.

The gas was already dispersed. Lew hurried to the nearest prone figure. He touched the man, then moved on, relieved. The man was merely in a fit. On Logan, that was nothing.

But when he bent over a girl lying twistedly, he could find no sign of life. The AEP demonstration had had at least one victim.

Other men and women were coming back now, hurrying to help the injured. Lew looked up suddenly, remembering Werman Lord. There was no sign of him. The platform was empty. The two microphones had been knocked over.

Lew and the other rescuers soon found the tally. Two men and three women were dead, three children and five adults injured, too seriously to move. Lew helped to load the casualties into ambulances.

After that, there was nothing more to be done. Lew hurried

to Mac's Saloon, looking for Hy . . .

He didn't find her for five hours. In the early evening, just before the first show, she came back, pale and dishevelled.

"Where have you been?" Lew demanded.

She tried to brush past him, but he grasped her arm firmly. "Six people are dead," he said grimly. "Did you know that was going to happen?"

She struggled, but he held her tightly.

"Anybody need any help?" a voice asked.

They turned and saw Cheryl.

"Were you in this, too?" Lew asked. "You broke up the meeting all right, and you only had to kill six people in doing it."

Hy and Cheryl exchanged glances. It was a new experience for Lew, finding Hy and Cheryl in alliance against him.

"Which of you is going to say 'You can't make an omelette without breaking eggs'?" Lew asked.

"We had nothing to do with it," said Hy unconvincingly.

"You ought to be able to do better than that. You're supposed to be an actress, aren't you?"

"Oh, shut up," said Hy, and jerked her arm savagely in another attempt to get away from Lew.

"I haven't heard anything, but I take it you kidnapped Werman

Lord? Or maybe he was murdered?"

"Let Hy alone," said Cheryl. "Between us we can handle you."

Lew was tense and angry, and so were the two girls. There was more conflict between them than was expressed in words. Hy and Cheryl both believed in something Lew was opposing. And it was still Hy and Cheryl in alliance against Lew.

"I wonder," said Lew, obviously by no means unwilling to make the experiment. "Why don't you AEP people grow up? Selection's fair, it's honest, and it's necessary. What gives you the right to kill six people who just happened to be standing around?"

"Selection isn't fair, it isn't honest, and it can't be necessary," said Hy hotly, with feminine logic. She took the general angle and not the particular because she didn't want to talk about the six people who had died.

"Why can't it be necessary?" Lew demanded. "Because you don't like it?"

Suddenly the futility of the discussion came home to him, and he released Hy. With a furious glance over her shoulder at him, she joined Cheryl and they hurried off to their dressing rooms.

Lew stared after them, half angry, half puzzled. What was the sense in this AEP business?

Any revolution made sense if what the revolutionaries wanted was *possible*. But what was the use of campaigning, demonstrating, fighting, in order to be immortal, or twenty feet tall, or telepathic?

The AEP was fighting for something which no one could give.

If Selection were in the slightest way biased, there might be some point in fighting it. There was always good reason for fighting graft, injustice, corruption.

But not even the richest man on Earth could buy exemption. Not even the poorest man on Earth need fear that he would be bundled away to some alien world simply because he couldn't stand up for his rights.

Lew wasn't merely neutral in the conflict. He was decidedly against the AEP.

On the other hand, he was for Hy.

When Hy and Cheryl were changing for the first show, the police arrived. Ned Bjornson himself was with two other officers.

"Can I help?" Lew asked, joining them.

"Yes," said Bjornson. "Is Hy Hendon here?"

"In her dressing room. Why?"

"When did she come back?"

Lew sensed that lying wasn't going to do any good. "Just a few minutes ago. She done something wrong?"

"We think so," said Bjornson grimly. "Werman Lord has disappeared."

"Disappeared?" asked Lew, as if that was a surprise.

"Kidnapped or killed."

"And you think Hy knows something about it?"

"Show us her dressing room," said Bjornson.

Lew led them there. He couldn't see that delaying or impeding them would help matters. Bjornson knocked on the door.

"Wait a minute," came Hy's voice.

Bjornson knocked again. "Open up or we'll blow the lock off," he said.

The door opened. Hy, in costume, stared at the three policemen.

"You're under arrest," said Bjornson, stepping inside. Drawing as little attention to himself as possible, Lew followed the three cops in.

Hy, though pale, stayed calm. They asked her to account for her movements in the last six hours. Hy said she had been in the square listening to Werman Lord. Asked to describe his speech, she gave a fair account of it. She answered questions about the bomb-throwing incident and what happened afterwards. They kept trying to trip her up, trick her into making some admission that would show she hadn't been where she said she was, but they had no success.

Lew, who knew Hy much better than the cops did, was trying hard to make up his mind whether she was telling the truth or not, and couldn't. According to her story, she'd been very near him in the square. He hadn't seen her, yet that didn't mean she was lying. The crowd had been so thick she could have been five yards away and he might never have seen her.

"After you ran with the rest, what did you do?" Bjornson asked.

Suddenly and unexpectedly Hy refused to say any more. So far she had been calm and helpful. It was as if she had suddenly realized that she was putting her head in a noose.

The cops took her away.

Lew made no protest. He was going to save Hy if he could, but arguing with Bjornson wasn't the way to do it.

He went first to Cheryl.

"What should I know about it?" Cheryl asked.

"I think you know all about it," said Lew. "Tell me first, did she do it?"

"No," said Cheryl. "But that's all I'm going to tell you."

And it was all she did tell him. When he finally realized that he wasn't going to get another word out of her, Lew pursued his inquiries elsewhere.

He didn't have to leave Mac's Saloon to do it. Most of the unmarried male population of

Tonton visited the saloon as often as they could afford it, and Lew was soon able to verify at least part of Hy's story.

She *had* been in the square. Several people had seen her there.

But when the bomb was thrown, instead of running with the crowd, she had hurried toward the platform . . .

That was the last thing that Lew could establish. Nobody had seen Hy from then until just before she appeared at Mac's. From the men who had seen her then, he gathered she had come from the direction of the airport.

The next day Hy faced a new charge.

A large parcel had been handed in for transmission to the Colonial Bureau, Earth. The sender was declared as AEP, Tonton, Logan. Its origin couldn't be traced. It had been handed in by a boy who had been given it by a man he couldn't describe. If the police found the man, he would probably turn out to be another catspaw.

Naturally, the parcel was opened and its contents inspected.

They consisted of certain human organs and a note. The note read:

From AEP, Tonton, Logan.

To Colonial Bureau, Earth.

We needed a mouthpiece, so we are sending Werman Lord's vocal cords to speak for us. The rest of him will arrive in due course. When you have reassembled him,

we hope he will have an interesting tale to tell.

The AEP demands the right to live on Earth.

That was all. The organs enclosed were, in fact, a human larynx and neighbouring appendages, crudely hacked from a fresh corpse. Though there was no proof that the corpse had been that of Werman Lord, few people saw much reason to doubt it.

The next day another parcel came into the hands of the Tonton police. The note inside it read:

*From AEP, Tonton, Logan,
To Colonial Bureau, Earth.*

Have a heart, Earth. Have Werman Lord's heart. The AEP demands the right to live on Earth.

The notes from the next three parcels ran:

*From AEP, Tonton, Logan.
To Colonial Bureau, Earth.*

Get some sense, Earth. Here is Werman Lord's brain. Maybe that will help.

The AEP demands the right to live on Earth.

*From AEP, Tonton, Logan.
To Colonial Bureau, Earth.*

We need power to be effective. Let Werman Lord's strong right arm work for us and our cause.

The AEP demands the right to live on Earth.

*From AEP, Tonton, Logan.
To Colonial Bureau, Earth.
Our campaign has been spineless*

for too long. Now we put that right. We mean business.

The AEP demands the right to live on Earth.

The remains were carefully examined and declared to be Werman Lord's.

Lew wasn't in any doubt about that. What he did wonder with desperate intensity was—how far was Hy concerned in the murder?

Had she killed Lord or been closely concerned in the killing? Lew, who knew her as well as anybody, didn't think it was impossible.

Or was she the AEP's scapegoat, completely innocent of the murder? And, if so, why wouldn't she say where she had been that day and what she'd been doing?

Lew would have given a lot to know the answers.

He had lost Hy once, and had had her miraculously restored to him.

He didn't intend to lose her again.

V

THE CASE AGAINST HY HENDON opened five days after the demonstration.

It was established that Hy was a prominent AEP member. Two surprise witnesses whom Hy obviously didn't expect to see were Corinne and Bob Baker. They gave their evidence reluctantly but

firmly. They agreed that Hy Hendon had told them:

"We're going to stop it no matter who we have to murder to show we mean business."

Various other people were called to show that Hy had said many similar things on many occasions to a large variety of people.

The trial proceeded by fits and starts, because not all the court had had their fits synchronized. The jury had, but the judge had a different schedule, the prosecuting counsel another, and the defence counsel yet another. Hy's was the same as the jury's. Since the trial couldn't proceed while any of these people were incapacitated, it was held up frequently.

It was next established that Hy had been in the square at the back of the crowd when Werman Lord began his speech. But after the bomb was thrown, instead of making her escape from the square, which would have been easy for her, she had run straight toward the platform. The last witness had seen her only ten feet from Lord before a whiff of gas lashed his face and made him blind for twelve hours.

Another witness described how she held a handkerchief over her face as she ran. Few people had had such presence of mind. The prosecutor tried for half an hour to establish that Hy had carried no handbag, had no pockets, and

would not have had a handkerchief with her unless she had known an irritant gas was going to be released. Defeated in this, he still succeeded in giving the impression that Hy's use of a handkerchief as a mask inferred she had known about the bomb.

He was probably right, Lew thought.

A few strands of material had been found on an adjusting screw on one of the microphones. It was established that these were from a dress belonging to Hy. It was shown that she had been wearing this dress that day, and was still wearing it when she returned to Mac's Saloon in the evening.

A private, unregistered plane had left the airport just after the demonstration. Little or nothing had been found out about this plane except that it had flown due north. The regular air service plane from the north arrived at Tonton just before Hy re-appeared in the town. She was first seen no more than a hundred yards from the airport and coming from it.

The defence counsel moved that all this be stricken from the record, but failed.

The grisly remains were produced in evidence and a doctor declared that the condition of all these was fully consistent with the facts about Werman Lord as he knew them. He was even prepared to give an opinion that the

remains came from a man killed by violence on the afternoon of the day in question.

Hy's statement was read. It was in accord with the evidence as far as it went. Then, suddenly, it stopped. The court was informed that the prisoner had refused to make any further statement.

The charge against Hy was not of murder, but of being an accessory. The colonial code of laws, necessarily stricter than those of Earth, provided for the death penalty in either case. It wasn't necessary to prove that Hy had actually committed the murder. It was even tacitly assumed that she hadn't.

The whole aim was obviously to make Hy tell the whole truth. The AEP had not so far been declared an illegal organisation. It was no crime simply to be, or have been, a member of the AEP. Yet now there were crimes which the AEP tacitly admitted—throwing the bomb, abducting Werman Lord and killing him.

If Hy told all she knew, the responsibility of the AEP would become clearer. So far, it was only an assumption that the AEP had committed any crime at all. Naturally any AEP member questioned about the bomb or the kidnapping, or the killing, denied knowing anything about it.

It was possible—unlikely, but perfectly possible—that some

other group was using the AEP as a cover.

In any case, Hy said nothing. Though she was obviously worried, she didn't break her silence, except to say that she hadn't killed Werman Lord. Since no one said she did, this was irrelevant.

When the defence case came on nobody gave it much chance. Justice is always rougher in frontier worlds. The case against Hy wouldn't have been strong enough on Earth, but on Logan it was quite strong enough.

So the defence counsel was wasting his time when he made it clear how circumstantial and tenuous the prosecution's case was.

Lew was called. He gave evidence that, before Lord's arrival, Hy had been threatened. Promptly Levitski and Bjornson were called to corroborate this. They did so. But the effect of this was ruined when the prosecuting counsel brought out that the threat had been by a woman who was jealous of Hy and wanted her taken to another part of the planet.

Hy sat and waited.

Watching his chance, when the proceedings were suspended because of fits and the officers who should have stopped him were the cause of the suspension, Lew got a word with Hy.

"Say something," he hissed, "even if it's a lie. If you don't,

you're finished, Hy. Can't you see that?"

She shook her head wearily.

"You can't care enough for AEP to die for it!" he exclaimed. "That doesn't make sense. You're fighting for life, aren't you?"

"*Life on Earth*," she said. "If I can't have that, maybe I can help others to get it."

Lew stared at her, realizing with sick horror that it was quite possible that she meant this. The issues to her were life and death—life on Earth or death on Logan.

Indeed, it struck him suddenly that she might have entered on this business in the hope that, since Werman Lord had been the First Colonial Agent, she'd be taken back to Earth for trial. If she had been, undoubtedly she'd have fought *there*.

"Listen, Hy," he said desperately, "they may not have made you any offer, but you know that if you spill the beans you'll get off. They want to be certain it's the AEP behind this. They want the leaders and particularly the actual murderer. Bargain with them, and you'll——"

"How do you know I'm not the actual murderer?" asked Hy with the ghost of a smile.

Lew had to move away from her then.

The jury was out a long time, which led Lew, always optimistic, to hope again. However, when

they returned the verdict was the inevitable one—guilty.

Lew was watching Hy as the judge cleared his throat to pass sentence. She was trying to remain calm, and not succeeding very well. Earlier she had seemed to be waiting for something. If that was so, she had given up.

The judge pronounced sentence of death.

Then a man strode down the centre of the court room. It was Werman Lord.

For several minutes there was pandemonium. Hy had fainted in relief, but nobody had any attention to spare for her.

When order was restored, Werman Lord was making a statement from the stand. No one heard the first few words, but when he was seen to be speaking, silence fell quickly.

"I am making no charge against the AEP," he was saying. "This girl will have to be released, of course. It will be said, I expect, both here and on Earth, that I was released only after promising to say what I'm saying now. Let me assure you, I gave no promises."

There was complete silence now.

"I don't say I entirely forgive the local AEP for kidnapping me," Lord went on, "but that isn't the question. Kept here for several days, living with members of the AEP, I have come to the

conclusion that the AEP is right. *This world is not fit for humans.*

"I am going to return to Earth and do all in my power to find some alternative to Selection . . ."

Not another word could be heard. There was a roar from the whole court, judge, jury, counsel and public. At first it was merely a roar. Then it became wild cheering.

Even Lew, who had never supported the AEP, joined in the cheering. If responsible people like Werman Lord realized that exile to worlds unfriendly to human beings was no solution for Earth's population problem, something might be worked out.

When it was established beyond all doubt that Werman Lord was Werman Lord, the case against Hy was dismissed. Bjornson at first wanted to hold her on suspicion of complicity in the murder of someone else, for parts of a *corpus delicti* were present. However, Lord said that he, personally, was satisfied with the AEP explanation, which was that the body concerned was that of a man killed in an accident the day he had been kidnapped.

"Did you know about this?" Lew asked Hy, as he led her, free, from the court.

"I knew Lord wasn't to be killed," Hy murmured, "but I didn't know about this scheme of sending those . . ." She shuddered. "When I heard about that, I thought they'd killed him. I

thought I was to be the scapegoat."

"And you still said nothing?"

"What could I say? I helped to kidnap Lord. If the AEP killed him afterwards, I guess I *was* an accomplice. It wasn't going to do me any good to say yes, I helped to kidnap him, but I didn't know they were going to kill him. Not in this court. But that's over. It doesn't matter."

She turned a radiant face to Lew. "It worked, Lew. We've really accomplished something."

"Maybe," said Lew cautiously. "The problem still remains. You don't think Earth's going to stop Selection just because Werman Lord says it ought to be stopped?"

"Maybe not, but he's an important man. If the First Colonial Agent says exile must stop, the governments of Earth will have to take notice. We're going to win, Lew!"

He shook his head soberly.

Hy turned on him fiercely. "Why are you always against anti-exile, Lew? Even now? Why won't you fight something you know is wrong, like the rest of us?"

"Because you can't fight facts," said Lew.

"You can change facts."

Lew shook his head again. "The real trouble is, Hy—Selection is fair. Fourteen per cent. too many people are being born on Earth. So fourteen per cent., chosen at random, are sent away. There

can't be anything fairer. It's cruel, but it's fair."

Seeing that Hy, who had been in jail for days, had just been sentenced to death, and released at the last minute, was no more than a hairsbreadth from breaking down, Lew hastily pulled her into his arms and kissed her.

"I'm sorry, Hy," he whispered in her hair. "I should be shot for quarrelling with you after what you've been through. You know I hope you're right—hope they'll listen to Werman Lord."

The next ship from Earth arrived a week later. By this time Werman Lord had had plenty of time to become used to the conditions of life on Logan, and had in no way changed his mind about what he must do now.

Half Tonton turned up at the spaceport to see him go. The ship was due to leave within a few hours of arrival. It was a passenger ship, and it didn't take long to load and unload passengers.

Werman Lord had come to Logan as an ambassador from Earth. He was leaving as an ambassador to Earth from Logan.

Lew and Hy were there in the crowd. They had managed not to quarrel again since Hy's release.

Neither of them spoke to Cheryl now. She must have known the truth all the time, and had told neither Lew nor Hy.

Lew had heard of a place similar to Mac's Saloon opening

in Enderton, and had suggested that he and Hy should try to find a spot there. But Hy, confident that they would soon get back to Earth, showed little interest in anything which meant settling more permanently on Logan.

The airlock of the tender opened. Lord, with Bjornson, quite close to Lew and Hy, said: "That's Max, my second. I guess he's come out to investigate my murder." He laughed. Bjornson laughed.

Max Emanuel, Second Colonial Agent, had come out for quite another purpose, however.

It was astonishing how quickly the crowd learned about it. It seemed to sense the news without being told.

There might have been shouting, screaming, a bloody riot. Instead, the crowd took it in silence. There was something uncanny about the silence of so many people in such a small space. Lew closed his eyes for a moment, and could hardly believe he wasn't alone.

Werman Lord had been Selected. It was assumed, Max Emanuel said, that since he was already on Logan he would want to stay there. If, however, he preferred to go to any other colonized world, he would have the same rights as anyone else . . .

The same rights as anyone else. The right to be Selected.

There was no demonstration. Numbly the crowd broke up and went home.

Hy was crying. "It doesn't matter what he says now," she murmured indistinctly, her head on Lew's shoulder. "Nobody wants to be Selected . . . everybody would object, if it did any good. No one will listen to Werman Lord any more. So we've failed, Lew."

"In one way you haven't failed," said Lew in a hard voice.

His tone was so brittle, so icily furious, that Hy forgot her tears and stared at him in wonder.

"Werman Lord's converted," said Lew, "and immediately exiled. It can't be blind chance, Hy."

"You mean"

She stopped. At first, stunned by the realization that what the AEP had done, all she'd been through, had gone for nothing, she hadn't understood anything except the fact that Werman Lord, as powerful an ambassador as the AEP could possibly have sent back to Earth to plead its case, was suddenly nullified, cut down to come crashing to the ground like a giant tree.

"You were right," said Lew grimly. "A man like Lord *might* have done something on Earth. If anybody could, he might. So they didn't let him come back. Hy, I never even thought of this before You told me about

your campaign back on Earth. You were the AEP Girl, known to millions. You must have been very valuable to the AEP there. Then you were Selected"

Hy choked at the horror of it.

"So you haven't failed really," said Lew more quietly. "I said you couldn't argue about Selection, Hy, and I meant it—if it was fair. But you can argue about the exile of all the opponents of exile. And that gives us something to fight with."

"You're—you're with us now?" Hy asked, brightening.

"Of course I'm with you. And so will everybody else be, everybody on Earth and everyone else who believes that Werman Lord was Selected to silence him. That's the one thing people won't stand for, Hy. They'd rather be sentenced to death than duped. They like a thief better than a double-crosser."

"But if you're right, Lew," said Hy slowly. "If Selection isn't random—what's the idea, what's the purpose? It's obvious about Werman Lord, but in general, why the injustice, why the corruption?"

"No purpose," said Lew bitterly. "We always look for a purpose, and there never is one. This happened just because power corrupts and the men with the power of Selection had to misuse it . . . because men always misuse power."

"That doesn't sound like you, Lew."

"It sounds like what I'm going to be from now on. Back on Earth the public won't be told the truth. The way they'll hear it, Lord was Selected and then joined AEP. But we'll get the truth through somehow. They should have known better, Hy. Werman Lord would never have been half as much good to us as an ambassador as he is as a martyr."

Hy pulled his head down to hers and kissed him as she hadn't done for a long time. "I think I can even face Logan, Lew," she said contentedly, "so long as we're together. *Really* together."

Lew let the bitterness flow out

of him. What Hy had said was what really mattered.

Because, of course, it didn't matter a damn whether Selection was corrupt or not. There was still no alternative.

Yes, he would fight. He would do all one man could do to make Selection honest, and Lew thought he could do a lot. He and Werman Lord and the AEP could raise such a storm that Selection would have to become as fair as Lew had always believed it was.

But that was a side-issue, not a solution.

There was no solution.

There never is to the really big human problems.

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FOOD FOR FRIENDSHIP

by E. C. TUBB

It was a brilliant idea; a sure-fire method of getting two passages for the price of one. It was also the only way they could get off the planet. But it didn't turn out to be so clever an idea.

“THE TROUBLE WITH adventure,” said Robeson feelingly, “is that it isn’t what it’s made out to be.”

“Is anything?” Smyth, he insisted on being different, stared wistfully at the globular fruits suspended on the branches of the tree beneath which they rested.

“No,” admitted Robeson. “And there you have the whole trouble with civilization. Adventure is a snare, a delusion, a tarnished bauble, a lying promise of freedom. Strangled in the economic rat-race of his own world, a man sells up, buys a ticket to some distant place, and ventures on the sea of space in search of the road to adventure.” He was mixing his metaphors but didn’t

let it worry him. “And then what happens? He finds himself worse off than before, caught in a vicious trap baited by his own necessity. Adventure! I’m sick of it!”

“I’m hungry,” said Smyth.

“So am I,” said Robeson. Together, they stared at the succulent fruits hanging just above their heads.

They didn’t eat them, of course; they knew better. It wasn’t morals which stopped them from reaching up and helping themselves. They had long since discarded such troublesome concepts as to the sanctity of other people’s property. They didn’t eat the fruits for the simple reason that, if they did, they would die in a most un-

pleasant and distressing manner.

"The Tortures of Tantalus had nothing on this place." With difficulty Robeson looked away from the fruits. "I can think of few things worse than for a starving man to be stranded on Mirab IV."

"Or Sirius II."

"Or Vega VIII."

"Or on Lochis, Mephisto, Wendis or Thrombo." Smyth rolled the words as if uttering a curse. "Or, in fact, on most planets of this triple-blasted universe."

Robeson nodded, too despondent to do anything else. The universe was huge, filled with planets and swarming with the Hy-Drive ships of a score of races. Most of the planets had the right gravitation, the right atmosphere and the right temperature for Terrestrial life. But for every thousand planets on which men could live without protection only one had the essential ingredient for colonization. Only one in a thousand could grow edible food.

It was the minerals which did it, that, and the subtle variations in the radiation received from the sun. Earth-like plants grew in profusion, but the apples were poisoned with selenium, the lettuces loaded with arsenic, the corn contained copper or some other mineral in the right proportions for the adapted plant but

the wrong proportions for human metabolism.

On such worlds men grew their own food in shielded hydroponic installations or starved.

The factor in charge of the food plant on Mirab IV was a dour, sandy-haired man who was firm in the belief that hard work was the destiny of the human race. Especially such members of it as Robeson and Smyth. He glared at the two men: Robeson, once plump and well rounded, looking a little like a partly deflated balloon; Smyth, always a small man, resembling a wizened gnome.

"So you're hungry, are you?" McKief felt a sense of his own power. He crushed it. "Well?"

"You're supposed to provide food for any Terrestrial requiring it," said Robeson, the self-elected spokesman. "We require it."

"I'm supposed to *sell* food to any Terrestrial requiring it," corrected McKief. "This isn't a charity station." He looked hopeful. "Can you pay?"

"No." Robeson was firm. "We spent all our money in that hash-house you run. Now they won't feed us any more."

"Spent all your money, have you?" McKief rocked gently back on his heels. "Waiting for a ship, I suppose, to carry you to some other world." He shook his head. "Well, well."

"It isn't well," snapped Robeson. "We're starving."

"Then you'll be wanting a job." McKief couldn't ever appear genial, but he was doing his best. Labour, on such backwood planets as Mirab IV, was scarce, and even such a pair of misfits as these two would be valuable. He pretended to consider, stroking his lantern jaw. "Let me see, now. Maybe I could use a couple of tank cleaners. Five-year contract at a credit a day plus keep." He pulled a couple of printed forms from his pocket. "Just sign and thumbprint these and you can start at once."

"No." Robeson had no intention of signing away the next five years of his life. "We're a couple of distressed spacemen," he claimed. "You've got to feed us."

"Got your papers?" McKief didn't wait for an answer. "I know you haven't. You were kicked off the last Terrestrial ship to land here. You're a pair of drifters, no-good space tramps dodging your responsibilities and shaming the entire human race before the aliens with your shiftlessness. You won't get any free help from me." He altered his tactics. "Just sign and everything will be all right. There's chicken for supper, with fresh green peas and mashed potatoes, with apple pie to follow. And coffee, real coffee with real sugar and cream. For breakfast, there's . . ."

"No," said Robeson hastily. Smyth, he could tell, was weakening.

"Have it your way," snapped McKief. "A meal will cost you a credit. Basic menu: a plate of yeast and a hunk of soy-flour bread. Take it or leave it."

"We can't take it," said Robeson. "We haven't any money. But we aren't going to sign any contract, either. Under the Regs we're allowed to work off the cost of our food."

"So you're a space lawyer, are you?" McKief looked disgusted. "I might have known it. All right, as you're so smart, you can report to the tank super. You'll get a meal for a fair day's work. Now get moving, the sight of you makes me ashamed of my race."

Smyth didn't move. "Please," he said weakly. "Couldn't we eat first?"

"You work, and then you eat." McKief was firm. "Of course, if you'd like to change your mind and sign the contract . . ."

Robeson led his partner away before he could yield to temptation.

"That McKief," said Robeson thoughtfully, "is a louse." He prodded at the unsavoury chunk of yeast swimming in a watery pool of its own natural juices which lay on a tin plate before him. "A first-class louse," he amended. "The king of them all."

"Don't you want that?" Smyth swallowed his last crumb of soy-flour bread and reached towards his partner's neglected meal.

"Of course I don't want it." Robeson snatched away his plate. "But I need it. I owe it to myself to look after my health." He chewed distastefully on the unappetizing mass. "You know, I've the conviction that if I were to collapse while at my arduous duties I'd recover to find a roast chicken before me—and my thumbprint on that contract." He took another bite. "And then we'd never get away from this place."

Smyth shuddered at the prospect. For ten days, now, the two had worked like robots cleaning the great hydroponic tanks of dying and odorous vegetable matter. The tank super, a contract man himself, had no time or patience to spare for any who refused to share his misery. So he piled on the work and made them sweat out the food he grudgingly gave them at the end of the day.

"You know," said Smyth wistfully, "we could afford at least one decent meal."

"We daren't," said Robeson. "Once we taste good food again we'll be lost. We need every cent of that money to beg, buy or bribe a passage on the first ship leaving here for a Class X world. Class X," he repeated wonderingly. "Food growing everywhere. Or-

chards, truck gardens, chicken coops, the works and every last bit of it fit to eat." He sighed and scraped up the last of his yeast. "Besides, if McKief guesses that we've got money he'll make us buy food until we're broke. Then he'll have us where he wants us."

"Chicken," said Smyth dreamily. "Green peas, mashed potatoes." He licked his lips.

"Five years of sweating for the sake of your stomach," reminded Robeson.

"At a credit a day," pointed out Smyth.

"Man," said Robeson sternly, "is not made for bread alone. There are other things. Could you go five years without a drink? You couldn't, and as soon as you taste it you'll want more and more. You'll even start smoking again. You'll wind up a slave to expensive vices and spend your money as fast as you get it." He picked at his teeth. "At the end of the contract time you'll be flat broke and have to sign up for another five years."

"But I'll eat," said Smyth. "The way things are I'm no better off."

"We've got money," reminded Robeson. "I've got fifty-three credits and you've got forty-nine. While we hang onto that we've got economic independence. With any sort of luck at all it will pay

our passage to a Class X world. Then you can eat until you burst."

"So you keep telling me." Smyth was hungry and irritable. "But when?"

The tank super came roaring in just then and saved Robeson from what could have been an argument.

"Overtime," he ordered. "A ship's due in tomorrow and McKief wants the supplies all ready for loading. You can start humping right away." He stormed out again, yelling to others. Robeson stared at Smyth.

"You heard that? A Terrestrial ship's due in tomorrow. Brother, this is it!"

Smyth rubbed his stomach in anticipation.

The plan was simple, masterly, logical, and contained a touch of elementary genius. The only thing wrong with it was that it didn't work. Robeson stared sourly at McKief, then climbed, with what dignity he could muster, from the bag of flour. The white powder didn't improve his appearance.

"I suppose," he said bitterly, "you think you're smart."

"Smart enough not to let these good people load up a couple of stowaways," snapped the factor. He stood back as Robeson dusted himself down. Smyth, looking more harassed than ever, stared

wistfully at the soaring bulk of the Terrestrial Hy-Drive ship. A grinning quartermaster supervised the loading of supplies while a couple of Rigelians looked on. The Rigelians had arrived at the same time as the Terrestrials and their ship was unloading supplies for the Rigelian station.

"I suspected what was going on when I checked the sacks." McKief believed in rubbing it in. "You knew that the quartermaster wouldn't argue about two bags extra on the manifest." He glowered at the unhappy pair. "Do I have to remind you of the penalties for stowing away?"

"Shut up," said Robeson. He knew the penalties, but he also knew that a little money to the right person would have closed the right eyes. Hy-Drive ships were fast and it would have been simple to remain under cover for the few days necessary to reach another world. He walked up to an officer.

"Where are you bound, sir?"

"Klargush then on to Perlon."

"Perlon's Class X, isn't it?" Robeson looked hopeful. "Could you use a couple of good men? I can cook and Smyth makes a good steward."

"No." The officer didn't like would-be stowaways and didn't bother to hide the fact.

"How much would passage cost then? For the two of us?"

"Two hundred and fifty each, basic rations provided."

"We can raise a hundred. How about taking it, signing us on as crew and forgetting to book the passage?" Robeson winked. "We won't complain."

"Not a chance." The officer glanced at McKief. "Sorry, fully-paid passage only on this ship." He walked away to confer with the factor. Robeson glared after him.

"If there's one thing I hate more than another," he said feelingly, "it's an honest man. Look at him! Turning down the chance of an easy hundred just for the sake of a principle."

"He's scared of McKief," said Smyth. "Maybe we'd better sign that contract now? That officer's telling McKief we've got money. If we volunteer to sign maybe he'll let us keep it."

"Not McKief," said Robeson positively. "The man's a sadist; he'll make us spend it first. Anyway, it's a matter of personal pride. I refuse to be beaten by a louse like McKief."

Smyth didn't say anything; he was too busy listening to the rumblings from his empty stomach.

"I don't like it," said Smyth. "I don't like it at all."

"So you don't like it." Robeson was impatient. "Now tell me what else we can do?"

It was two days later and Robeson's prediction had proved correct. McKief had gently shaken his head when they had reported for work, pointing out that they weren't really distressed, as they had money, and regretting that he couldn't accommodate them under the Regs. On the other hand, if they were to sign the five-year contract, they could live like kings. Robeson had dragged his partner away when the factor had casually started talking about the menu.

"I've fixed everything," he said. "The Rigelians will sell passage to one man for one hundred credits. We've got that. Naturally, as it's an alien ship, I'll have to provide my own food. That's where you come in."

"I don't like it," repeated Smyth. "Why can't I have the passage?"

Robeson sighed as he stared at his partner. At times Smyth appeared really dumb. The commissary problems were such that no one ship could provide food for any and all races who might want passage. So food was provided only for the members of the race operating the ship. Others were given a cubicle and water, and left to provide their own food. It was a system which worked perfectly. It would work now if Smyth would be reasonable.

"I'm the biggest," pointed out Robeson. "Also I've put in the

most cash. But I don't see what you've got to worry about. The trip is scheduled to last three days and we can last that long. All I have to do is carry you into the ship and claim that you're my provisions. Simple."

"Maybe." Smyth still wasn't happy. "But why me?"

"Could you carry me?" Robeson snorted and shook out a sack he had found at the hydroponic station. "Come on now, no more arguing. With any sort of luck at all we'll be on our way within the hour."

The Rigelian on duty at the air-lock stared curiously at Robeson as he came puffing up the ramp, a sack slung over his shoulder.

"Paid passenger to Perlon," he gasped, extending his ticket. The Rigelian examined it, found it in order and uttered the customary warning.

"Passage only sold liable to alteration on route." His translator clicked and hummed. "You have provided yourself with supplies?"

"I have." Robeson opened the sack. "You want to see?"

The Rigelian leaned forward, two of his eyes extending themselves as he peered into the sack. Smyth, his skin blackened with charcoal, his hair clipped and his hands bound, glared up at the alien. Robeson swallowed, hoping that the deception would work.

It did. The eating habits of other races were varied and strange. The Rigelians themselves ate mineral salts, the Vegans a mass of quivering, opalescent jelly. The guard saw nothing strange in a live, animal-form being used as food. The disguise was sufficient to make Smyth, to a Rigelian, utterly different from a normal Terrestrial. Also he fell into the essential weight-restriction that no food supply could be greater than the body-weight of the passenger.

"You may enter," hummed the translator. "Take-off within the hour."

Safe inside the cubicle, Robeson released his partner and wiped the sweat from his face and neck. Talking was out; a man doesn't hold discussions with his food, but both gave a sigh of relief as the ship lifted and the familiar twisting sensation told of the operation of the Hy-Drive.

"Three days," whispered Robeson. "Then we eat."

"Just enough time to work up a really sharp appetite," agreed Smyth, also in a whisper. He fell silent as the door slid open. A Rigelian entered the room.

"We regret to inform you," clicked the translator, "of a change in schedule. We have been re-routed to Lundis, a journey of twenty days. I trust that your food supply will be sufficient."

Mother of Invention

by A. BERTRAM CHANDLER

It was a simple enough thing he wanted to see; a scientific toy. Primitive, of course, because his own culture had advanced so greatly. He forgot how dangerous curiosity can sometimes be.

"IT WOULD BE BETTER," said Clements, "if you knew Greek . . ."

"Or Egyptian," replied Collins.

"No," insisted the scientist. "Greek. That's what they talked in Alexandria in those days. I'm no historian, but I do know that much. But why Alexandria? Why not Rome, at the time of the fire? Why not Herculaneum, at the time of the eruption? Why not Atlantis, at the time of . . ."

"Why this passion for disasters?" asked Collins. "I've agreed to be the guinea pig for your machine, and I reserve the right to be sent to the place and time of my choice. I've always been interested in the might-have-beens of history. And I want to see Hero's steam engine. That's all . . ."

"All the past to choose from," grumbled Clements, "and all you want to see is a hunk of primitive ironmongery that could never have been put to any practical use, anyhow . . . Oh, well, you'd better have another drink before you go. They only had wine in

those days, you know. No spirits . . ."

Collins sipped his whisky appreciatively. The part of his mind that always remained sober was coldly censorious. *You're a fool, it said, and Clemens is another. You'll sit in that crazy contraption of his, and he'll pull a switch—and what then? Electrocution for you and a hemp necktie for him . . . Of course, as you're both drunk, he'll probably get away with only a light sentence for manslaughter . . .*

He started to laugh.

"What's the joke?" asked Clements.

"This," spluttered Collins, "is far too much like a comic strip. Mad scientist picks up inoffensive clerk in saloon bar of pub. Inoffensive clerk goes back in time and changes history . . ."

"I'm *not* a mad scientist," replied Clements, speaking slowly and very distinctly. "People can't be bothered to understand my theories about Time—but I'm not mad . . ."

"You don't *look* like a scientist,"

AUTHENTIC SCIENCE FICTION



agreed Collins. "You look more like a successful pork butcher . . ."

"You look more like a mad scientist than I do," insisted Clemens. "You look like the very type who *would* try to change history. How does it go? 'Yon Cassius hath a lean and hungry look, he thinks too much, such men are dangerous . . .' Are you sure you wouldn't like to go back just fifty years or so and strangle Adolf Schickelgruber in his cradle? It could be arranged, you know . . ."

"It wouldn't work," said Collins. "I used to be a Communist once, and I still more or less believe in Dialectical Materialism. Hitler was a symptom, not a cause. Eliminate Hitler—and there'd be somebody else to play the same part in the same way . . ."

"So you've no intention of persuading the Alexandrian Greeks to build an industrial civilisation around Hero's steam engine?"

"First of all," said Collins, "I can't speak Greek. Or Egyptian. Secondly, in Hero's days, the time just wasn't ripe for steam engines . . ."

Clemens laughed.

"I shouldn't be sending you back if I thought that you could change history—I'm happy enough in this world as it is today, and in any alternative world neither of us might have been born. I don't believe in all this Marxist rubbish of yours, but

this I do believe—it is impossible for any man to divert the main stream of history. Oh, if you were to explode a hydrogen bomb over Rome at the height of its power and glory you'd change history all right—but I'm not sending you back with a hydrogen bomb."

"I just want to see the steam engine," said Collins.

"Cleopatra?" suggested Clemens. "Helen of Troy?"

"Not even Messalina. Just Hero's little old steam turbine."

"Have you ever been psycho-analysed?" asked the scientist.

"No—but my mother was frightened by a steam roller. And when I was a kid I wanted to be an engine driver . . ."

"One more drink," insisted Clemens, pouring the whisky. "Now, Collins, listen carefully. You'll have just ten minutes in ancient Alexandria. You'll have to move fast. You don't know Greek, so I don't know how you're going to ask your way . . ."

"I've thought of that," said Collins. "I'll take some paper with me, and a pencil. I'll sketch Hero's steam engine. I've small change in my pocket—copper and silver. As far as I can gather they weren't too fussy about money in those days as long as it was official-looking coinage. But couldn't you give me longer than ten minutes?"

"No. It's all a question of how much power I can pour into the

machine. My next model will, of course, have a far greater capacity. With this model you will have, as I've told you, just ten minutes. The return to the here and now will be entirely automatic. It will be like . . . like . . . How shall I put it? It will be like a stretched rubber band snapping back into place."

"I'll manage," said Collins. He got unsteadily to his feet. "What are we waiting for, anyhow? The bottle's empty."

"The Great Fire of London?" suggested the scientist. "The Spanish Armada? I've often wondered how much truth there is in that story about Sir Francis Drake and the game of bowls . . ."

"No. Alexandria and the first steam engine."

"If you insist," said Clemens.

The cellar, -thought Collins, was something like the cellar of a mad scientist and could well have served as a set for a B Grade science fiction movie. There were odd looking machines doing things in corners, and whining, creaking and grunting as they did them. There was an intermittent blinding, crackling and the acrid smell of ozone. Collins remarked on this to show that he was not entirely devoid of scientific knowledge.

"Ozone has no smell," snapped Clemens. "That stink's only the dust particles burned by the discharge."

"Oh. What's that . . . *thing!*" Collins pointed at an affair of glimmering, spinning wheels.

"That," said Clemens, "is *it*. Temporal precession. At the moment it's just, as it were, stationary in Time. Step into the field, into that white circle painted on the floor. Wait! Look at the clock first!"

Collins looked at the clock on the wall; a cheap, kitchen clock, incongruously commonplace. The time was just twenty minutes past eleven. He stepped into the white circle, conscious that he was far, far too close to the spinning, whining wheels. He expected some kind of shock, but there was none. He expected a feeling of tension, but everything was normal. His vision was unaffected. His hearing . . . He felt the beginnings of panic. Even the whining of the machine had ceased. In stepping into the circle he had stepped into a world completely devoid of sound.

Stepping out of the field was not so easy as stepping into it had been. He strained against an invisible, intangible barrier that gave way suddenly. He lurched and staggered, off balance. Clemens caught his arm before he fell.

"Look at the clock!" he said.

Collins looked. The clock read eleven thirty-five.

"You could have altered it," he said, without conviction.

"Of course I could," agreed

Clemens. "I could have done all sorts of things in the fifteen minutes—about five seconds to *you*—that you were in stasis. But I didn't. Why should I? Anyhow—are you ready?"

"As ready as I ever shall be. More ready than I shall be after I've sobered up."

"Right. Step into the field again. No, not yet—wait until you've got your instructions. Step into the field, and just look at the spinning wheels. You'll find yourself *drawn* as they precess. Don't fight it. Let yourself be drawn. After that, you'll be on your own. You'll be pulled back quite automatically when your time's up. Try to bring back some souvenir if you can. A coin, for example. Any sort of small artifact."

"I'll try," said Collins.

"Good-bye," said the scientist, holding out his hand. "Au revoir, I mean."

"Au revoir," said Collins.

He stepped into the white-painted circle.

He remembered little of his voyage through Time. At first, when he stepped into the temporal field, he was in a state of stasis, as he had been before. Then he had heard again the whine of the gleaming, spinning, precessing wheels, and he had, as he had been instructed, watched them. He had been, as he had been

told that he would be, *drawn*. It had not been a pleasant sensation. It had been, after the initial panicky struggles to hold onto something, anything (and there had been nothing to hold onto) a long, sickening fall down the night.

Weak and trembling, he stood on the rough flagstones. The chill drizzle on his face did not refresh him but added to his already intense feeling of misery. He blinked his eyes, thinking at first that his vision had been affected by his journey. He realised at last that it was night, and that the cities of the ancient world were not as well lit as those of modern times.

He was standing in a narrow street. Dimly he could see the tops of buildings in silhouette against the dark grey sky. He could see the faint lines of light on the black walls that told of closely shuttered windows.

He sniffed. There was the smell of the sea, the smell of decaying fish. There was the stink of garbage and unmentionable filth. So far, he thought, so good. Alexandria was—and is—a seaport. And it smells not so far different from how it smelt when I was here during the war.

He looked around him.

That ruddy glare in the sky, he thought, must be the Pharos, the lighthouse. Wasn't it one of the seven wonders of the ancient

world? But I didn't come all this way—or time—to look at lighthouses . . .

A door crashed open a few feet from where he was standing. A shaft of yellow light streamed out over the wet paving, illuminating three struggling figures. Two of them picked up the third and threw him from them. He sprawled motionless where he fell. The other two men went back inside the building. The door slammed shut after them.

Cautiously, Collins approached the still figure on the ground. He stooped over the man. He pulled his matches from his pocket, struck one. By the brief, yellow flame he saw a bearded face, rough, dun coloured garments. He heard the stertorous breathing that told him that the man was still alive. He recoiled as he got a whiff of the man's breath, the main ingredients of which seemed to be sour wine and garlic.

So the man was drunk and had been thrown out of a tavern. The tavern, decided Collins, would be the best place for him to get the information he required. In such an establishment they would be used to dealing with foreigners, with seamen who had no knowledge of whatever language it was that was used in Alexandria. He refused to consider the vision that presented itself to his mind, of a Martian, knowing no Earthly tongue, trying, by sign language,

to ask his way to an atomic power station in a London pub . . .

He found the door through which the drunk had been ejected. He fumbled for a handle, finally found a primitive latch, which he raised. He opened the door.

He found himself in a large room, lit by a half dozen or so smoking oil lamps. There were long tables, and benches, and bearded men and slatternly women sitting at the tables. Some were eating. Some were singing. Most of them were drinking—a few from mugs and goblets, the majority from wine skins.

Collins realised that somebody was talking to him. Rather wildly, he looked around him, then looked down. The owner of the voice was a short, enormously fat woman with a greasy face and greasy black hair, dressed in what looked like a greasy cotton nightgown.

"Could you tell me . . .?" began Collins foolishly.

The woman nodded her head, pushed Collins towards a vacant place at the end of one of the benches. He stood there, bewildered, then, as she hustled off, decided that he might as well sit down. A bronzed, bearded giant with gold rings in his ears shifted grudgingly to make room for him, looked down at him with curiosity. He said something in a guttural voice. In reply Collins

shrugged his shoulders and shook his head. The giant muttered something that sounded like an oath, then resumed his conversation with the big breasted slut sitting on his other side.

The little fat woman returned, carrying a large goblet that she thrust into Collins' hands. She bustled away again, pulled down one of the large, gnarled sausages that was hanging from the wall, cut off a generous portion with the knife that was thrust through the frayed cord about her waist. This she slapped down on to the filthy table top before the time traveller. She stood there then, waiting expectantly.

Collins fumbled in his pocket. He pulled out a handful of small change. He selected a two shilling piece, thrust it into the woman's hand. She brought it up to her mouth, bit it. Satisfied, she thrust it into the pouch hanging at her side, bustled away.

Collins looked at his watch. He knew that the time it told was meaningless—but knew that its record of the passage of time would be correct. The second hand, he was relieved to see, was moving in its usual jerky manner. Unluckily, he had not checked the time of his arrival. He would have, he estimated, no more than ten minutes—if that—to accomplish his mission.

From his inside breast pocket he pulled an old envelope. From

his outside breast pocket he pulled his propelling pencil. Opening out the envelope, spreading it on the table, he rapidly sketched Hero's famous steam engine—the spherical boiler, the two tangential exhaust pipes. He was aware that his neighbour was watching him closely. He smiled at the bearded man, pointed to the rough sketch and made a circling motion with his right hand.

The bearded man looked puzzled. He took the paper, stared at it, then passed it to his woman. She sniggered, then said something to her companion in a whining voice. He replied gruffly, then snatched the pencil from Collins' hand. The woman put the envelope back on the table. The bearded man started to draw. Collins drew in his breath sharply. A street plan? There might still be time . . . But it was curves rather than straight lines that the big man was drawing. Normally, Collins had no objection to pornography, but now it was wasting his precious time. He reached out to recover his pencil. His sleeve brushed against the bearded man's goblet, upsetting it. The spilled wine splashed into the woman's lap.

She screamed, then launched into shrill vituperation.

Collins got hastily to his feet.

"I'm sorry," he said. "I didn't mean . . ."

The woman was clutching her

companion's arm, was yelping at him furiously. Collins didn't need to understand the words—the meaning of them was all too obvious.

"What are you doing about it, you big ape? Sitting there and letting me be insulted?"

The big man sighed gustily. He got to his feet, fumbling for the knife at his belt. Collins turned to run. A huge hand grabbed the collar of his jacket. Collins wriggled and shrugged, and then was free. Two steps he took towards the door, and then he was falling . . .

. . . And falling . . .

He opened his eyes, expecting to see the cellar, the Rube Goldberg apparatus, Clemens. He realised, suddenly, that he was in the open air, that he was standing on the sidewalk of what seemed to be a city street. But the city was not London. The architecture of London's buildings is not, save for a few isolated cases, all columns and colonnades carried out in gleaming, floodlit marble. The traffic in London's streets is not a procession of silent, open carriages rolling by on high wheels.

Collins remembered Clemens' analogy of the stretched rubber band snapping back to its original dimensions. The band, he thought, has snapped back too far. This is the future . . .

And they still advertise, he

thought. They still use neon signs. But the signs aren't in English . . . Russian?

Frightened, he began to walk along the footpath. He did not know where he was going, but movement gave him a brief feeling of relief. Passers-by stared at him curiously, and he was uncomfortably aware of the incongruity of his costume. The citizens of this strange city were all dressed, male and female alike, in short sleeveless tunics, coming to mid-thigh, and sandals, all in a wide variety of colour.

He had better, thought Collins, surrender himself to somebody in authority. Before doing so, however, he would attempt to discover something about this world of the future—and the best way of so doing would be by window shopping. So—he window shopped. He stared into the brightly-lit windows of liquor shops, of confectioners, of tobacconists. They told him little. He could not, of course, read the labels of the bottles on display. He did learn, however, that cigarette smoking was no longer practised, that the only two ways in which tobacco was now burned were in pipes, conventional enough briars, and in long, thin cigars. He looked into the windows of tailors' shops—and they, in addition to the tunics, exhibited suits not unlike the ski suits of Collins' own time. One such suit

had a breathing mask incorporated into its hood . . .

So Collins was not too surprised when he came to the window of the travel agency. He paused briefly at the first display—the big, silvery model of a dirigible airship and the map of the world, on a projection that could have been Mercator's, with the air travel routes shown in red. It was the second display that was really fascinating—the spaceship standing, slim and gleaming, on the red sands, with the domed city and the almost black sky in the background.

Two men—cleanshaven, bare-headed, clad in the inevitable tunics—were looking at the same display.

"New Hellas Lines may not have the same safety standards, George," one was saying, "but on the Martian run good feeding is just as important as safety . . ."

"Are you English?" asked Collins abruptly.

The two men turned to stare at him.

"We are Anglians," said the elder of the two, a stout fellow in his forties. "And now, sir, if you will allow us to resume our conversation . . ."

"This is important," persisted Collins. "I apologise for butting in—but you must answer me. What city is this?"

"New Athens," replied the man shortly.

"Show it to me on the map in the other window—*please!*"

The man sighed, remarked to his companion: "I suppose we'd better humour him." He walked slowly to the air travel display, followed by Collins.

"There," he said, pointing.

The stubby finger indicated London.

"And do you live here?" persisted Collins.

"Of course not. Do you take us for Greeks?" He pointed, again, to North America, to New York. "There is our home town—Greenwich."

"And the name of your country?"

"What *is* all this in aid of? Anglia—the Kingdom of Anglia."

"One more question," pleaded Collins desperately. "What year is this?"

"Nineteen fifty seven," said the Anglian.

"And how do you reckon time?"

"By the Christian calendar, of course."

"Hadn't we better call a policeman?" said the younger man. "This fellow must have escaped from a mental hospital!"

He shouted, and a blue-clad man came running up and, after a brief struggle, immobilised Collins with an ingenious set of manacles that bound wrists to ankles. One of the silent carriages bore him to a station house, where

he was locked in a far from uncomfortable cell.

"Almost," said the psychiatrist, "I believe you. And I am pleased that I was called in—thanks to my knowledge of the barbarous Anglian language. The Anglians, of course, disclaim all knowledge of you. It was thought that you might have come from their Martian colony—your clothes indicate that." He fired the question suddenly at Collins: "You have never been to Mars?"

"No," said Collins wearily.

"Yet you claim to travel in time, which is utter fantasy. You ask me to believe that in your world, your fantasy world, the commonplace of space flight is only a dream, whereas the fantasy of time travel is an actuality. And you *believe* it; the lie detectors do not lie."

"It's true," said Collins. "All right, I've talked enough. Suppose you give me a rough run through of *your* history . . ."

"If it will help," said the psychiatrist at last. "Of course, I'm no historian . . ."

"When was your Industrial Revolution?" asked Collins. "When was machinery first used on a large scale?"

"Everybody knows that," said the doctor. "It was the Great Plague of the Year 75 that started it. Luckily, Hero had already

invented the steam engine that was to replace human labour. Our people became the engineers and technicians of the world and, after the Revolution of the Year 192, gained control of the Roman Empire and raised Hellas once again to her rightful place as leader of the world. The Anglians, however, drove west in their crude paddle steamers and established themselves on the Atlantic continent . . ."

Collins shuddered, remembering how Clemens had told him that one man couldn't divert the main stream of history. One *man* couldn't—but what of the billions of microscopic and ultra-microscopic life forms that he must have left behind with the jacket he had lost in the Alexandrian wine shop?

"Doctor," he said, "I see now what happened. Necessity is the mother of invention—and when it was necessary for men to start inventing machines, owing to the sudden dearth of slave labour, they did so . . ."

"Bacteria mutate, don't they?" he went on. "And viruses . . . God! I must have taken some vicious ones back with me! You'd better accept my story as true, doctor, and get somebody to check up on what I might be carrying."

"I don't want to change the course of history again!"

TOPSIDE

by PHILIP E. HIGH

They waited a thousand years, sheltered from the cataclysm which had sent them into hiding. They dug upwards in a strange resurrection—to find themselves aliens on their own planet.

Illustrated by ADASH



HIS FIRST AWARENESS WAS OF pain; dull, far away, but coming closer. A pain which throbbed, burned and twisted in the darkness.

Someone was making mewling noises, animal sounds, bubbling— He had a feeling it was himself, but when he tried to stop it there was no change.

Something pressed on his chest and abdomen, lifted, pressed and

lifted again. There was a roaring in his ears and water-choking sounds.

Sounds! His mind tried to cling to that in the pain. Sounds outside himself which seemed to have no relation to the roaring and bubbling somewhere inside him—

"Pulse rate——"

"Cardiac response——"

"Hypo', quick——"



Far away sounds which he felt he should understand but couldn't.

He screamed. A piercing echo which seemed to fill and embrace his conscious world.

"Jackpot," said a voice. "He made it."

The words and their meaning evaded him. Something warm seemed suddenly to fill him and, although the pain was still there, he seemed lifted above it and floating away.

He lay in the darkness timelessly, trying to remember, trying to recall who, or what, he was. Slowly he began to drift back. He became conscious of vibration, something pounded steadily at his body, pounded, rolled and pounded again.

Light came dimly through his closed eyelids, and through his ears sounds which almost had meaning.

"Wake up, Langlin, wake up."

He tried to move and the pain leapt suddenly with a thousand tiny needles and wrenching cramps. Gurgling incomprehensible sounds came from his mouth, a whimper—

"Langlin, if you can hear and understand, move your fingers."

He tried. The pain clawed at him again.

"Good, listen. Don't be alarmed, you made it. Lie still, let the massage take effect." The voice paused. "It's going to hurt. You'll

have to take it; half the effect will be lost if we drug you."

Another voice said: "Seven weeks seems about average."

"Yes, and another four before he can stand unaided."

Seven weeks. He tried to infer meaning from the words but couldn't. He had an uncomfortable feeling that it was a long time.

He lay still, curiously weak, staring unseeingly at the dimmed lights in the ceiling above him. The seven weeks was up, and in an hour or so the constant agonising slapping and rolling of the massage machine would cease. They would tell him to try and move, to turn his head and clench his hand. He would try, the sweat would stand out on his face and a scream rise in his throat. He knew already what movement meant and the agony of pain it brought, but his mind was clear.

His name was Langlin, David Langlin, Technical Commander, Defence and Exploration Division, Sector Nine. He was highly trained, carefully selected from thousands of applicants, and thirty-five years old. His mind balked suddenly. He *had* been thirty-five years old—once. If the calculations of the scientists had been accurate, he was still thirty-five, plus, *plus* the inconceivable number of years he had been kept in suspended animation.

He was David Langlin, one thousand and thirty-five years of age.

A man entered the room and stood looking down at him.

"Magruder." Langlin's voice was a croaking whisper which brought spasms of pain to his throat.

"Hello, Dave." Magruder's face was gaunt and sunken, but still alert. "It's been tough, hasn't it?" He smiled twistedly. "It was worse for us, an automatic machine which injected, massaged and fed us, which lifted us out of the sleep chamber after a specified period. We couldn't plead with it, argue, complain, and when it said walk, we had to walk. If we fell, it picked us up and we started again— Proust died."

Langlin tried to nod and winced. "Who thought up this idea of suspended animation?"

Magruder laughed softly. "Let's face it, Dave, the need for deception is past. We never discovered suspended animation. Bluntly—we killed you."

Langlin tried to sit up, bit back a groan.

"Yes." Magruder frowned at his feet. "We punched your heart to a stop, froze the glandular centres to stop them running amok, shot your body full of stalathene to preserve it, placed it in a tank of preserving fluid. You, I, the others

have been deader than ducks for a long time." He laughed softly, without humour. "The medical staff are already calling themselves the Lazarus squad." He crossed to the massage machine, studied dials, flicked a switch.

The mechanical hands, the vibrators, the muscle-rollers purred slowly to a stop. "You're on your own, Langlin. This is where you start work."

Men came and lifted him from semi-immersion and placed him on a bed. His legs looked like dull grey sticks, fleshless, terminating in club-like bony feet.

The man who came next day looked tough, active and alert. He wasted no time. "I'm the physical rehabilitation man." He flung the bed clothes back with practised skill, taped a lead from a cardiac assessor to Langlin's chest and flicked a switch. "Heart beat normal for a recuperative—right." Unconsciously he stood to attention and squared his shoulders. "Raise your right arm."

Langlin tried and groaned.

"No good, try again. Raise your right arm." He scowled. "Don't twiddle your fingers, *raise your arm!* That's better. Again."

He came again the next day, and the next. It seemed to go on for years.

"Raise your right arm . . . Your left arm . . . Raise you leg . . . Turn over . . . Turn back . . . Raise your head . . ."

Four weeks later he took his first tottering steps across the room in an agony of pain. He'd made it, made it, twelve swaying paces from the bed to the wall. The first steps—the first twelve paces in a thousand years.

As the days passed he slowly gained strength, his body filled out and he found it possible to stay on his feet for more than an hour at a time.

"Tomorrow you start in helping," said Magruder. "We need all the help we can get. Got to get the rest of the priority staff on their feet."

"What about the others?"

"Worry about them after the preliminary survey. We don't know what it's like up there yet. It may not be safe, we can only hope." A button fell from his coat and he retrieved it, sighing. "It's surprising the things which stood the test of time; surprising what didn't. Some of the lubricants are sheer goo. Insulating plastics fall to pieces at a touch. The techs will have to improvise, invent, gimmick."

"I don't suppose the cigarettes survived?"

Magruder said: "No," sourly. He had been a heavy smoker. "Fortunately, we lost very little food; that special stasis chamber of Johnson's seemed to work." He turned abruptly. "Apply to

the committee when you start; they've got some chewing gum, it's better than nothing."

Langlin lay on the folding bed a long time after Magruder had gone. He was remembering; remembering the endless, silent queue to the mine entrance, and the chill November wind stirring discarded newspaper by the railroad tracks. Far away, against the stars, the silhouette of the city climbed towards the sky like an abandoned fortress; empty, silent, already almost forgotten. A single light burned in one window like a solitary eye, probably an executive, or a guard making a final check.

Occasionally a turbo-car came whispering from the city, its lights cutting long swaths in the darkness. Just one more automobile to be added to the millions of abandoned vehicles which surrounded the mine head.

Somewhere near him a child whimpered and a woman's voice said: "There, there, honey."

He'd walked on. Two men were arguing in low voices:

"Why the hell couldn't they get us away in spaceships?"

"All twelve of them?"

"They could build some more, couldn't they?"

"I guess so, but how long would it take? A hundred years? And, anyway, where would we go? You can't breathe on Mars and

Venus is just a dust bowl, blowing all the time, they say——”

He'd walked on. In a few weeks the queue would be gone and it would be his turn.

Only part of humanity was prepared to take the advice of the scientists, and the hasty, but thorough, preparations for race survival. There were those, and their numbers ran into hundreds of millions, who refused to believe, or were prepared to take their chances on the surface. To hell with suspended animation; and the scientists could be wrong, couldn't they?

Langlin thought they were cultists expecting some spiritual phenomena, or just plain stupid because anyone who stayed topside was going to stand less chance than a snowflake in hell. Suspended animation, retreat into the earth, was, he thought, the only possible answer. Somehow, the race had to survive, and it was doing it in the only possible way.

When his turn had come he had gone, almost fearlessly, into the preparation room. His last conscious thought as the needle pricked him was that he was doing the most practical and sensible thing. Of course, at the time, he'd really believed in suspended animation; he hadn't known that they were going to kill him.

The techs fussed over the drill and swore as only techs can. The oil was goo, some of the metal had deteriorated, the leads were fouled up——

Langlin stood back with Magruder and watched them sweat as they tried to get the power unit working.

“Seems a contradiction in terms, drilling ‘up,’ doesn't it?” Magruder's jaws moved rhythmically on the inevitable gum.

“I wonder what it's like up there.” Langlin's teeth ground on the tasteless substance which, one thousand years and four months before, had been chewing gum.

Magruder shrugged. “How can anyone say, even guess? A thousand years. Think of it, a thousand years! Then there's the comet; God knows what that did.”

Langlin recalled, with an uneasy feeling in his stomach, those first guarded reports of over a thousand years before. A comet had been detected by the world's major observatories which, it was feared, might pass through the solar system. Gradually the reports became less guarded, franker, more urgent in their warnings. The comet *would* pass through the solar system, it would pass very close to the Earth. It was, by degress, revealed that a near collision might be expected. The comet would pass close

enough, not only to endanger all life on the surface, but to affect Earth in its orbit round the sun. If the planet survived these primary dangers, the after-effects would be, to say the least, colossal. Normal orbit would be erratic and Earth might swing from glacial cold to intense heat and back again within the space of a few years. Return to near-normality could not be expected in less than eight or nine hundred years.

Fortunately, thanks to the radar telescope, Earth had eight years in which to prepare. The people did the only thing possible: they went underground, deep into the Earth. They poured into abandoned mines, into specially prepared borings. Men and machines dug and bored industriously, hour after hour, day after day. They extended natural caverns, already miles in length, to hundreds of miles. Tremendous, complicated machines extended mine workings until they were larger than the largest cities. The entire resources of the race turned to survival, trucks and railroads rolled in supplies to the borings.

The medical people experimented and won. And science turned its ingenuity to the apparently insurmountable task of preserving necessities for a thousand years with only eight in which to experiment.

Langlin heard a dull click as a

pellet of "solid" air dropped into the converter and another pellet took its place. Air which had been condensed and solidified by atomic re-arrangement and preserved. Air which men had breathed a thousand years ago. He hoped, with a sudden cold feeling inside, that there was still air topside.

A tech plugged in a head to the drill and scowled in their general direction. "You can make an atomic pile last a thousand years, still get power, but this drill will have used up every bearing in the place before I get up ten feet."

"Optimist," said Magruder cheerfully.

"Sure, sure, a hundred and fifty feet of rock and eighty six feet of plasto-seal. If we have to hand pick——

"Our kids will develop swell muscles cutting the last fifty feet," finished Magruder, still cheerful.

The tech grinned. "I've been dead a thousand years. I could have stayed that way. We'll figure a way to beat this thing before that."

Magruder patted his shoulder. "I knew you would."

The man nodded, plugged in a lead, fed power to the subsidiary unit and flicked a switch. "Here she goes."

The drill began to whine softly.

"Perhaps," said Magruder in a low voice, "all over the world, in all the caverns scheduled for primary awakening, they're starting, starting to come out, or perhaps . . ." His voice held a hint of strain. "Perhaps we're the only ones to survive."

Langlin sweated as the drill began to bite into solid rock, vibrating, setting his teeth on edge. Not one of them knew what the final boring would reveal. The comet, passing so close, might have sucked the atmosphere from the face of the Earth. Undoubtedly, there had been major upheavals, perhaps, even now, the drill was eating its way upwards to the bed of an ocean deeper than the Pacific.

Culbertson came in from a passage leading to the laboratories. He pushed a wheeled tray in front of him; on it were test tubes, micro-scales, equipment. He shouted above the noise of the drill: "When you get through the plasto-seal cut boring, I'll want soil samples every eighteen inches."

A tech brushed sweat from his face. "Go take a vacation; it will be hours yet." He leapt suddenly and slapped down a switch. "See?" He pointed. A thin spiral of blue smoke was rising from somewhere inside the power unit. "These bearings fold up as soon as you lean on them; some metals just can't take a thousand year

rest." He gestured. "All right, boys, let's pull it to pieces." He jerked his head savagely at Culbertson. "And get that goddam trolley out of here; it's a jinx."

They watched, the hours passed, the drill broke down again, the techs pulled it to pieces, started again.

"What's wrong with an atomic drill?" said Langlin.

"Nothing," said Magruder, yawning. "Unfortunately, it would leave the boring 'hot.' If there's air up there we'll want to pump it down, sooner or later."

Time passed. Culbertson wheeled in his trolley and the drill broke down. The techs swore at him, started dismantling again.

There was a sudden change in the sound of the drill four hours later. A tech cheered and said: "Through the plasto-seal, by God!"

They waited. The drill raced suddenly, shivering, and someone cut the power. There was no sudden out-rush of air, and, after a tense wait, no inward flow of water.

Magruder brushed sweat from his face. "Maybe we can live up there. Maybe it's safe." He leaned wearily against the wall and shook his head. "God, I was afraid, after a thousand years—" He didn't finish the sentence.

Somewhere something clattered and a squat vehicle with heavy treads growled in from a side passage. Langlin recognised it as a radio-controlled borer. It would cut upwards at an angle, making a hole big enough for a man to crawl through.

Culbertson was back with his trolley, shrill and excited. Another scientist arrived with a probe rod, the detachable sections tied on his back like a quiver full of arrows.

Magruder stretched. "You'd better get some sleep, Langlin. As soon as that borer hits surface we're sending up two men. One scientist and a combat man to take care of him. Pick a good one. We daren't risk more than two until we know what's up there."

Langlin went to his cell and realised suddenly that he was unutterably weary, but spent three hours checking his equipment before almost falling into the folding bed.

It seemed he had barely closed his eyes when he awoke with someone shaking his shoulder.

"Thought I'd better wake you. The cutter will be through in eighty minutes." It was Magruder.

Langlin sat up, his weariness gone. "Any reports?"

"Yes, I wrote them down for you." He fumbled at his side and the pocket came away from his suit. Magruder swore. "Wait until I wake up the guy who manu-

factured textaline. He said it was good for five thousand years." He retrieved personal possessions from the floor, straightened and opened a metal-paper note book. "Ah, yes, time approximately four a.m., rough star check, probably inaccurate. Temperature, seventy-five degrees Fahrenheit, twenty degrees too high for this area at night. Preliminary bug count, soil and atmosphere, negative. Culbertson found a new virus in a soil sample, a mutation, he thinks, but not harmful to man. Moisture content seems pretty high for the area, too." He stopped, pulled at his ear and looked uneasy. "You'd better pick your toughest man to go up through that hole."

"I'm going."

"The hell you are, not if I know it."

Langlin stood up, began to pull on equipment. "I'm combat commander, remember? The committee has no jurisdiction over topside survey and defence. My second, Hendricks, can handle things if I don't come back."

"What are you trying to do? Be a hero? Win a medal?"

Langlin strapped on his belt. "I just can't ask one of my men to take a chance I wouldn't take myself. It's part of the training, kind of a tradition, too." He frowned. "What's making you so scary?"

Magruder shifted his feet uneasily, began to chew his thumb nail. "They pushed the probe rod up for a second test." He hesitated, refused to meet Langlin's eyes. "Something took the end off."

"Chewed it off?"

"Well, not exactly. The severed end showed the effects of intense heat. It looks as if something had a go at it with a heat torch."

Langlin stood at the entrance to the second boring and shivered, shivered and felt the sweat run down his face. He was honest enough with himself to wish he *could* send someone in his place, but knew he could never live with himself again if he did.

Magruder tapped him on the shoulder. "This is Wily, the scientist who is going with you."

Wily was a little, wiry man with unruly hair and a lumpy sort of forehead. "I can take orders, commander, but I find it hard." He grinned.

Langlin liked him. He looked alert and obviously lacked nothing in the way of courage. "I suppose you were selected?"

"No, I was born silly. I volunteered, and, if you want to know why my hands tremble, it's scientific curiosity."

Langlin grinned tightly, nodded. "Mine have the same complaint. Let's go."

The boring, a narrow tunnel, which they were compelled to follow on hands and knees, seemed endless. Halfway up, Langlin said: "What time is it? Up there, I mean."

"Near enough noon." Wily was panting.

Langlin crawled the last ten yards with a disrupter pistol ready in his hand. He had no wish to be caught off guard by something which could shear a durasteel rod in half.

The tunnel came out on the top of a small hill. Langlin shifted the pistol from his right hand to his left, unhooked a splash grenade from his belt and made a quick survey; then he stood upright.

Wily struggled out, panting, stood up, dumped a box of heavy equipment and looked about him. "My God," he said in a strained voice. "My God."

Langlin closed his eyes. It seemed only yesterday he had last stood on the surface and a thousand years of death had not blocked his memory. In front of him had been the mine buildings and beyond them four railroad tracks running from east to west. Beyond the tracks a major highway, running north, had cut like a metal band into the rich farmland beyond. In the east had been the towering buildings of the city, a city which had housed and sheltered seven million people.

Now—— He opened his eyes and looked again. Now, where the city had been, a dull, burnished ocean lapped at a rocky shore. In front of him stretched an uneven swampy plain, misty, strewn with rock and boulder. Here and there, water gleamed among big-leafed, stunted trees which resembled no trees he had ever seen.

Wily was already plucking a leaf from a nearby shrub and studying it through a pocket microscope. "Cellular structure seems crazy, re-arranged, a mutation of some kind."

Langlin hardly heard him. Beyond the plain was a jagged range of mountains, thrusting black and immense towards the sky. At the far end of the range wisps of grey smoke curled slowly skywards from the black cone of an active volcano.

Wily was studying another instrument. "We're nearer the sun; been shifted out of orbit."

"What's happened? It looks as if Earth has reverted to the primeval."

"I wish it had. Unfortunately, there have been major mutational advances. This leaf——" He held it in the palm of his hand. "Unbelievable, the most complicated cellular structure." Wily made a helpless gesture and glanced about him. "God, it must have been hell up here, sheer hell. Earthquakes, heat, cold, a shifting

of land masses, tidal onslaughts which stagger the imagination." He pointed. A thousand years ago the Atlantic was two hundred and eighty miles away, today——?" He shrugged. "One assumes it has come closer; it could be the Pacific."

"It's a wonder our vaults survived."

"Ah, that's due to the Pliothene; wonderful discovery, pliable, limited magnetic force field, resist almost anything in the way of pressure. I expected changes, even major ones." He squinted at the distant volcano. "But not on this scale."

"Think we can survive up here?"

"From a pure survival point of view, yes." He held up the leaf. "This I don't like, don't like at all."

Langlin looked at the blue of the sky and at the sun, which seemed a little too big and far too hot. "What do you think fried the top off that probe?"

Wily brushed sweat from his face. "I don't know. Candidly, I don't think I want to know."

Langlin became alert again. The splash grenade in his clenched hand was wet with sweat. "Scout around a little?"

"Sure, which way?"

"Easiest way down, but a hundred yards is the limit."

They found it, thirty paces from the hill.

Wily said: "Path——" and stopped.

It wasn't a path. It was too smooth, had obviously been constructed, and was only four feet wide.

The telecamera, which was part of Wily's equipment, purred to sudden life. "I hope they're getting this good down in the vaults."

Langlin sweated. There was something frightening about the very presence of this miniature highway; that it was a highway was indisputable. It was cambered and, where it skirted water, the corners were banked. Rocks had been split and, in some cases, tunnelled to give it passage.

They followed it, unbelievably, for fifty feet, rounded a bend, and stopped.

Wily made inarticulate croaking noises in his throat and turned a frightened face to Langlin. "I don't believe it! I can't! Let's get to hell out of here."

Langlin nodded, turned. There was a cold feeling at the back of his neck.

The scientist pulled him suddenly into the shadow of an overhanging rock. "Listen."

High up, invisible against the sun, something they couldn't identify droned throbbingly towards the mountains.

They waited until it had gone and sprinted for the tunnel. Langlin paused only to booby

trap the entrance with a criss cross of detector rays hooked to two splash grenades and crawled hurriedly after the scientist. When he came up next time he was going to bring a whole squad with a battery of triple sonic cannon.

Magruder pored over the pictures for a long time. When he looked up there was a thin film of sweat on his face. "Tell me again, how did you find these?" His finger stabbed at the pictures.

"We just rounded a bend and there they were." Wily made a helpless gesture.

"They could be toys." Magruder obviously didn't believe the explanation himself.

"And a toy highway to go with them?" Wily sounded contemptuous.

"But why tossed to the side like that? It just doesn't make sense."

Wily banged his fist suddenly on the table. "My God, Magruder, I thought you were a realist, but you're acting like an old lady, trying to explain it away." He leaned forward. "Let's face it, there's another race up there, maybe two races. Further, they're at war."

Langlin looked again at the telepictures. The tiny, eight-inch, single wheel vehicles tossed indiscriminately to the edge of the miniature highway; many were

broken or completely burnt out.

"Look!" Wily stabbed a thin finger at the picture. "An unknown race was moving its vehicles, maybe it was a supply column. Before it could get where it was going, something came and beat hell out of it, shot it to pieces." He paused. "It looks like an air attack to me."

Magruder said: "Shut up." He scowled at the pictures.

"I should imagine," said Wily, ignoring him, "that engineers have been up, cleared the road."

"Which means," said Langlin suddenly, "another column is due soon, maybe now." He chewed his lower lip. "Probably it will be bigger, have air cover——" He stopped. "Wily," he said, softly, "have you a man who might have enough imagination to establish communication with an alien race? A man with guts enough to come up through that hole with me?"

"Jennings," said Wily almost without thinking.

"That outstanding?"

"More than that, the man's a genius, wholly unorthodox, eccentric. He has no respect of person or rank, commander."

"If he has guts and can do the job, I want him."

"I'll talk to him, but I want to be in on this, too."

Magruder stood up. "I forbid——"

Langlin cut him short. "Sorry, this is my department."

"But, my God, you'll be wiped out. You don't even know what sort of race it is. For all you know they may have come from another star."

"Quite, they could, but I've an idea I want to try out. You'd better stand by for a casualty or two. I'm taking up a squad."

"You have no authority to start a war."

"No one," said Langlin coldly, "said we were going to."

Magruder sat staring at the pictures long after they had gone. A miniature highway, four feet wide, and a strip of it, forty yards in length, blackened. On each side of this strip were burnt-out and damaged vehicles, varying from ten to eighteen inches in length and all of them rode on a single wheel. The sweat ran down his face unnoticed. What sort of race rode in vehicles no bigger than toys?

A tech came in, his face pale. "They're awake in sector seven. Harris got an earth-call from them asking for help. What can we do?"

Magruder glanced wearily at the map. "Sector seven, let's see." He made rapid mental calculations. "Do they know what's above them?"

"Yes, they bored upwards and got water. Had to seal off."

"They're five miles out to sea

according to our surface survey, such as it is. We should be able to bore through from here. Take about a month if they start out to meet us." He rose. "I'll see the chief tech." He stopped, flipped open an index and studied the map. Sector six was twenty-three miles to the east of sector seven. They didn't stand a chance. Fortunately, awakening in their case was not due for another two years. Maybe, by then, they could figure something out. That's if they survived two years. Hell, he should have stayed good and dead.

"What do you intend to do?" said Wily in the privacy of Langlin's cell.

The other shrugged. "If you want it straight; play a hunch. Don't let that remark throw you off balance, incidentally. I was trained, psycho and practical strategy, and I'm not quite a fool. If we play this the wrong way, we could have two deadly enemies uniting to destroy a common threat—us. Just because they are small doesn't mean they aren't deadly. We need allies. I want to be in a position where one side or the other is under an obligation, preferably the losing side. They'll be more anxious to talk turkey, less inclined to ask why."

Wily raised one eyebrow slightly. "Back to power politics, eh?"

"It's a question of survival isn't it? One side, or both, is going to find out that we're here sooner or later, and they have enough technology to drive us back in the vaults and keep us there. I've got to play it cagey long enough to get a foothold on the surface, get up enough men and machines to make it a full-time job to drive us back."

"Just how do you intend to go about it?"

"Item." Langlin held up one finger. "A race was running a supply column and it was knocked out. Item. It will try again. Item. The enemy will try and wipe it out again, probably near the same spot."

"And we intervene?"

Langlin looked grim. "I know it sounds insane, but it's got to be tried, otherwise we don't stand a chance."

Wily nodded slowly. "It makes sense, in a way. Candidly, I don't think we stand a chance against one side, alone; they're ahead of us. I don't know what the highway is made of, but it's harder than any surface we know." He pulled absently at his ear and continued talking, almost to himself. "A vehicle which runs on a single wheel—I had a good look—and no gyro. How the hell do they run a single wheel vehicle without a gyro?"

Jennings came up from the

miniature highway and pushed back his obsolete spectacles. "Well, that's that. An intelligent race will be able to make sense of one message or the other. I've used a sonic device in case they lack vision, and quite a lot of other gimmicks; they'll get it." He scratched his bald head, which was peeling from sunburn, and winced. "Made any sense of that vehicle yet, Wily?"

"Yes." Wily pointed. "Thrust or jet type motor with four small down-thrust tubes to hold it upright until it gains momentum. These tubes cut out when the correct speed is attained, after which the aerodynamic construction holds it upright. See these air flukes? Stabiliser fins. When the motor is cut completely, an ordinary retractable, three-leg undercart for parking. Ingenious, isn't it?"

Jennings frowned. "I'd call it ominous. Think of the speed that thing needs before it can cut the downjets. Something mighty tough runs around in vehicles like that."

"What, for example?" said Wily.

Jennings looked at him over the top of his spectacles. "Obviously a mutation."

"I'd figured that for myself."

"Then the rest should be obvious." He wandered away.

"There are times," said Wily, "when I could beat in his head

with a rock, genius or no genius."

Langlin glanced at the radar man. "Anything yet?"

"Nothing, sir." The man resumed his careful study of the screen.

The squad had dug in on the hill around the boring. There were twenty-seven men with small arms, the portable radar team and the crews of two sonic cannon. The squat, black barrels of the cannon pointed meaningfully towards the sky.

Jennings wandered back. "In case you gentlemen arrive at the obvious conclusion when the evidence is before you, consider the evidence. In your own words, it has been hell up here; what type of life could have survived such extremes? Surely it is obvious, even mice and rats have their limitations." He wandered away again.

Wily snapped his fingers suddenly. "Insects! It is obvious. Plants got by, they're here; the rest is sheer logic."

"Blips, sir," shouted the radar man, and added, hastily: "I think. They're kind of small." He read out bearings.

Langlin was staring to the west, glasses to his eyes. "All right, boys, they're coming, and fast. Keep low and watch the sky; don't fire unless ordered."

Wily lay still and watched. In the distance a long column of black specks moved steadily along

the miniature highway. Black motes swirled and danced in the air above—air cover?

"Blips," shouted the radar man and called bearings.

"North east," said Langlin. He searched the sky; the glasses in his hands seemed unsteady.

Wily watched the black motes over the column coalesce, form a black cone which hissed skywards.

"Seems they've got radar, too." Langlin's mouth was a tight line. "Nevertheless, they fell for the oldest bluff in air to ground warfare."

Wily, lying in his foxhole, said: "How come?"

"Easy enough. Send over a few ships, draw away the air cover. If the opponent is smart he'll send in destroyer groups from some other point."

"Blips," shouted the radar man as if to confirm Langlin's words. "A hell of a lot, north."

Wily tried to wriggle himself deeper into the earth; almost he wished he was back in the vaults. He watched the defence cone above the column rise higher, grow smaller, until it was lost in the sky. Dimly came faint reports, something trailing black smoke fell earthwards, there were brief, bright flashes and a high whistling—

Langlin barked orders. The barrels of the sonic cannon swung northwards and upwards, the

automatic tracker chattered faintly and frightened faces stared at the sky.

In the distance something droned and drummed, growing louder. The sound was alien, yet curiously familiar.

"Ram jets," said Langlin, suddenly. "My God, if they're using pilots in them, they're tough. Riding a ram jet, hell—"

The destroyer group came suddenly into view. Langlin shouted an order. The sonic cannon began to whine, a whine which rose to a scream and passed beyond human hearing; small arms flickered from foxholes—

Ten minutes later the remnants of the destroyer group was trailing north.

Langlin wiped sweat from his face. "Let's hope we played it right."

Wily took a quick look over the edge of his foxhole. "They've stopped by Jennings' message gimmicks."

"Where the devil is Jennings, anyway?" Langlin scowled about him.

A figure staggered over the brow of the hill. "I got one. I saw it come down." It was Jennings; something heavy was cradled in his arms.

"What is it?"

"Enemy ram jet. Anyone got

any tools to get this thing open?" He laid the object carefully on the ground.

The machine vaguely resembled an enclosed frying pan with the long jet tube forming the "handle." It was about two feet wide and about eight inches thick. Stubby, rudimentary stabilisers seemed to be the only method of outward control.

"You suggest there's some sort of life form in control of that thing?" Wily looked at it nervously.

Jennings smiled acidly as he struggled to open the tiny port. "What are you expecting? A giant ant? A life form may mutate, but one must remember nature is exerting pressure constantly to adapt the creature to the highest possible survival level. Nature learned in early times that immense size was a dead end. If the thing in here ever was an ant, it won't look like one now. Ah——"

They crowded round, staring at the object that Jennings carefully withdrew from the now open port.

"What the hell is it?" Langlin shuddered.

The creature was about seven inches in length and had a black segmented body. The head was large with faceted eyes and short, club-like antennæ.

"As I remarked earlier, it

resembles nothing we knew a thousand years ago." Jennings slipped magnifying lenses over his spectacles and leaned closer. "When one considers the reproductive cycle of an insect and the increased solar radiation one may say, conservatively, that these creatures have been subjected to the equivalent of several million years of evolutionary adaption." He paused, stroking his chin absently. He might have been in a lecture room, for he had completely forgotten his surroundings. "Note the feet." He took a pen from his pocket and pointed. "The equivalent of two fingers and an opposing thumb. The brown markings round the thorax are artificial: webbing for equipment, safety belt, and so on."

"If you don't know what it is *now*," said Wily, in an irritable voice, "what *was* it?"

Jennings pulled at his ear absently, frowning. "Hummm, very difficult to say. Offhand, I am inclined to the opinion it's forebears were of the wasp family; the club-like antennæ are characteristic."

"I wonder what our potential allies were?" said Langlin. "Maybe I trod on one once and they'll bear a grudge."

It was twelve days before Jennings came panting up the hillside flushed with excitement. "We've

done it, worked it out between us, a simple morse system. We worked our way up to words of six-letters inside five hours." He paused to regain his breath. "My God, we've chosen the right allies. They've got solar energy, plastics we can use, longevity serums——" He stopped and frowned absently at Langlin. "They're not warlike and were taking the hell of a beating, but don't imagine you've fooled them any. They're grateful for our timely intervention, but want to know what we expect in return."

Langlin barely seemed to hear him; he was staring out over the alien landscape which had once been a familiar world. "This is our world, ours. We committed virtual suicide to retain it, and now we've got to fight to win it back again." He sighed. "I should be a diplomat, I suppose, but if I remember rightly that kind of double-dealing never paid off in the long run. Tell them the truth as soon as possible; don't dress it up, put the position frankly. Tell them we'd rather live in peace, but if we have to fight, we'll fight."

"How much chance would we have?"

"Against both of them? None."

"It's a risk."

"Look, Jennings, this thing is like re-birth, let's start it clean. This deal has got to be on the level. Our potential allies may be bugs, but we don't have to act

like city hall rats. I'd rather fight and lose."

"Right." There was respect on Jennings' face and the beginnings of friendliness. "Right, I'll do exactly as you say."

Magruder had had four weeks to study the reports. His face looked sunken and haggard as he pushed the last one aside. "You seem to have done well, very well. I will admit that, at first, I was appalled by what you were doing and what you intended to do. It seems to have been a lucky hunch, however." He turned to Jennings. "You say we can live in peace with these things?"

"Not only live in peace, but almost in friendliness. We live in different spheres with different aims and fundamentally different wants. Fortunately, however, these differences are complementary. We could build a city on the top of one of theirs and they'd welcome it. Many of the by-products of our civilisation are helpful to theirs, even our garbage might prove extremely valuable. On our side, we stand to gain a solar energy motor, a new theory in dynamics, and a pliable plastic which can be hardened to something tougher than durasteel. Incidentally, they think they can help us with our sector six problem. They're prepared to open a

small boring which could be enlarged."

"All those miles?"

"They're rather in the way of specialists in that sort of thing. Hot on rock formations, geological stress, they'll do it. They'd like our vaults when we've done with them, by the way."

Magruder said: "Thank God for that. I never want to see them again." Suddenly he looked an old man. "It's been hell down here. You guys have had your hands full topside; understandably you haven't seen all the reports. We imagined, if life was bearable topside, a triumphant resurrection; mankind returning in his billions to reclaim his heritage, but it isn't going to be like that." He tapped a pile of reports with his finger. "Fourteen sectors completely obliterated, volcanic action, even Pliothene can't take that sort of thing. Down here, we're only getting a twenty per cent. survival figure. Some of the preservation tanks failed; nothing but a stinking, black liquid to show it once contained a man. Five per cent. of those we resuscitate are going to be an encumbrance; they're not insane, merely psychologically incapable of grasping the change and the passage of time. They talk about ball games, replacing furniture in their homes, rides in turbocars, that sort of thing. We've told them a hundred times, a thousand, *They can't grasp it.*" He put his

head in his hands, and his shoulders shook.

Wily said, gently: "You'd better come topside for a while, help build. We'll find a replacement for you."

"You really intend to build?" There was the faintest trace of hope in the broken voice.

"Of course, they're widening the boring now." Wily took Magruder's arm. "Better come and lie down for an hour or so, huh?"

"How many do you think will actually reach topside?" said Langlin to Jennings.

"On the basis of reports to hand, enough to survive, enough to start all over again, say fifteen million."

"Only the population of an average city? Out of all Earth's billions?"

Jennings made a helpless gesture. "I daren't say more. Without our friends we should have dropped below survival level with double that number, reverted to savagery, or been wiped out."

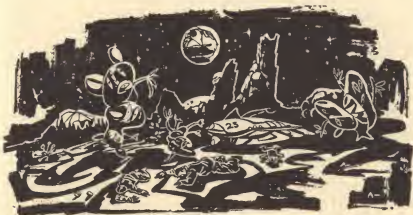
"Are you kidding?" Langlin's voice was almost insulting.

"No. I wish I was. I stopped and studied some of those reports; Magruder didn't tell us everything. Our type of civilisation is dependent on its technology, and to maintain that technology we need machines and fuel to run them. Machines are folding up every day, spares getting low, fuel getting

lower. If we knew where oil deposits were, which we don't, we'd run out of machines before we could get it, and even if we didn't, we'd run out of necessities before we could refine it. How would we get metal for fresh machines? Sure, we have atomic power, but we still need fissionable materials to produce it. Where would we find and mine it?" He paused.

"You know, Langlin, they liked your honesty. Thanks to you, and them, we can build machines from

simple chemicals—plastics, and run those machines on solar energy." He turned suddenly, his face strangely alive. "I don't know if there's a God, Langlin. I'm a scientist. I don't profess to understand the metaphysical, but doesn't it strike you as strange that we owe our continued survival to a bug? Think, we ruled the world, the dominant life form, and now to survive we must live in amity with a six-inch insect, a creature that was once—a termite.



OUT OF REACH

by BRIAN W. ALDISS

Solite was a beautiful place, a veritable paradise. The people were beautiful too, but both they and the planet were so far away. There was a reason, of course, why they should remain so.

THE DIRECTOR OF DREAMERY Five slid impatiently out of his chair before the silent control panels. He couldn't sit here with the question of Floyd Milton on his mind. Every so often, a distant *crumping* outside announced that the enemy attack was still on; that made him no more easy. He would be safer down in the vaults, peering in on Floyd Milton's dreams. But that was not the main reason he caught the lift and sank into the cool depths of Dreamery Five: the main reason was, he had seen Milton's face when he came in, that afternoon. Milton had looked like death.

The sleep levels were, as usual, humid, and reeked of the spirit used by the robot masseurs.

"You filthy slugs!" the Director said aloud in the direction of the rows of sleepers.

They lay dormant, heads concealed in the feedback phones. Occasionally, a sleeper would be rolled up till his toes rested on his

shoulders and his behind pointed into the air; rubber-covered machinery would flick up and pummel him. Then it stretched him out again and pummelled his chest, carefully avoiding the intravenous feed-pipes which hung down from the ceiling. And all the time, the sleepers slept and dreamed their dark dreams.

"Slugs!" the Director spat again. It would never have done to have a Director who loved the sleepers in his charge; alone in the vast, automated dreameries, he would have been too likely to pry in on the reveries of these neurotics.

Apart from a few young people moved by genuine curiosity, only the neurotics and society misfits spent their time in the dreameries, playing out their lives in useless reverie. That, unfortunately, accounted for a fair percentage of the population; the sixty years cold war—now broken into something horribly hot—was responsible for a staggering number of mental invalids who were only too glad



to retreat by the scientific escape route of the dreameries into their own fantasy world.

Floyd Milton had not looked that type. Nor had he looked like one of the tough spacers who, after the ardours of a long run to Mars or Ganymede, sometimes came here to recuperate for a spell. He looked like a man who had betrayed himself—and knew it.

Which was why the Director had to look at his dream. Sometimes, men—real men—could be saved from themselves before they sank too low.

Before Milton's bed, the Director paused. The latest arrival was silent, breathing shallowly, his face hidden under the visor and feedback phones. Noting his number, the Director hurried into the nearest control booth and dialled the number. He assumed a visor and phones himself.

In a moment, he would be plugged automatically into Milton's world; from the look on Milton's face when he entered Dreamery Five, it would not be pleasant, but tuning circuits ensured that the Director could always modulate the empathy effect enough to retain his own consciousness.

As always, when about to undergo these supervisions, the Director hurriedly made a mental survey of his own world: once in someone else's dream, it was

difficult to orient oneself. It was not a comfortable world. The ideological barriers up all over Earth since the forties of the previous century had precluded any advance in human happiness.

In the late seventies the first little tin cans of ships had plonked themselves down on the Moon. In the late eighties the principles of sub-threshold suggestion had been applied to the sleeping brain; coupled with feedback techniques, a method had been evolved for making one's own dreams more vivid than a 3-D film. Within three years, Dreamery One had been built.

And just before the turn of the century, the Solites had arrived. They came, not in spaceships, but portmatters, house-like affairs which broadcast themselves to Earth from the Solite world. Their science was a parascience, far beyond Earth's understanding, yet they took an innocent delight in Earth.

"They loved Earth!" the Director said. He had seen the Solites, with Earth's blessing, load their portmatters with Earth's riches—which meant for them Earth's plants and animals and butterflies. They had been adorable people. And when the cold war suddenly blew hot, they had disappeared, saying they could not return.

That moment, to sensible people everywhere, had seemed the moment that hope died.

"You are through, sir," a metallic voice said.

The Director braced himself. Next second he was plunged into the dreams of Floyd Milton.

It was pleasant. After the creepy vaults of Dreamery Five and the distant murmurs of a global war, it was doubly pleasant.

All the same, for the Director, it was strange.

Incredibly strange.

The plants had flowers as lovely as girls' mouths; the flowers budded, blossomed, faded and produced streamers fifty yards long which billowed lightly in the breeze, scattering perfumed seeds. The plants grew in a circle, and the circle was a room.

Only one room. Another room had for its walls a twinkling myriad of fish, little grey fellows with forked black tongues like snakes. They swam in towers of water that wet your finger if you touched them. The matter-transmitter fields, two molecules thick, held them in place.

Another room seemed to be sheathed in stars: but giant moths flew round and settled on the stars. The stars chimed as they were touched.

In another room, snow fell eternally, magnifying itself as it sank, into crystals three inches across—and vanished as it touched the floor.

In another room—but every room was different, for this was

the palace of Amada Malfrey, and the palace was on Solite. Amada herself was here, just returned from her visit to Earth, loaded down with flowers and tigers. She was giving a party to re-unite all her old friends and introduce them to her second husband.

The guests numbered under five hundred. A good proportion of them had brought their husbands, brightly dressed men whose frivolous robes contrasted nicely with the black-draped semi-nudity of the women. Many women, and some men, came escorted by animals, cheetahs, macaws or a sort of superb lizard three feet high when walking erect. Animatedly, they thronged through the magnificent rooms.

Gay balloons, wafted on artificial trade winds, floated glasses of drink about the rejoicing palace. Nobody appeared to be drinking too much; one other thing made the party quite unlike an earthly party—though everyone talked, nobody did so at the top of their voices.

Dazzled, watching it all, the Director thought that he had never seen a fantasy half so fantastic as this. Yet he could tell by its careful detail that it was memory rather than the wish-fulfilment stuff most of the inmates of Dreamery Five brewed in their dark little brains. Floyd Milton had actually walked through this incredible building.

He had walked among these gay avenues of cold-burning argon playing its rainbow light over the guests' faces. He had strolled along this invisible path above a babbling stream. He had eaten those fantastic foodstuffs, spoken to the guests in his halting version of the Solite tongue.

All these things Milton had done because it was his palace. He was Amada's second husband, and the party was given in his honour. The guests flocked here to meet him. This was the night of his life: yet he was not happy.

"You look worried, pet," Amada said to him. She might have been a woman of Earth, and a lovely woman at that, except for the scanty thatch of hair which curled tightly across her head. Now she wore the martyred look any woman wears when her husband is being awkward at an awkward moment.

"I'm not worried, Amada," Milton said. "And please don't call me 'pet.' Your blue tiger here is a pet."

"But it's a compliment, Floyd," she said. "Is not Subyani a beautiful pet?"

"Subyani is a tiger. I am a man. Can't you try and remember that little distinction?"

Amada never looked angry, but now the martyred expression deepened; it made her, Milton had to admit, look very kissable.

"The distinction is quite obvious

to me," she said. "Life is too short to waste it pointing out obvious things."

"Well it's none too obvious to me," Milton said angrily. "What do you people do? You come to Earth, and you proceed to take everything you can: trees, grass, fish, birds——"

"Even husbands!" Amada said.

"Yes, even husbands. You do all this, Amada, because you people have fallen in love with Earth. You ship just about everything you can here. It makes me feel no better than an exotic plant or a poodle."

She turned her beautiful back on him.

"Now you are acting as intelligently as a poodle," she said.

"Amada!" he said. When she turned slowly back, Milton said penitently: "I'm sorry, darling. You probably know why I'm irritable when I should be at my best—because I keep thinking of the war back on Earth. And—the other thing . . ."

"The other thing?" she prompted.

"Yes. Why you Solites are so reticent about where in the universe this world is. Why, you wouldn't even point out its direction to me in Earth's night sky. I know that with your portmatters distance is immaterial, but I'd just like to know. It's one of those things that nags me."

Amada let an image of a big

butterfly settle on her finger as she said, carefully: "In Earth's present state of civilization, she could not reach this world; so why should it matter where we are?"

"Oh, I know our little spaceships are just a beginning . . ."

He let his voice trail away. The trouble was, Solite civilization was too big and too beautiful. They might look like Earth people, but they thought and acted differently; they were—alien. That, basically, was what worried Milton. A lingering puritanism in him made him wonder if he was not, perhaps, committing some nameless sin in marrying a woman of another planet.

After only a week of marriage, he and Amada had had several—no, they were not quarrels, just differences. They loved each other. That, yes; but Milton, questioning his own love, wondered if, perhaps, his hand had not been forced by the knowledge that by marrying her he could get to the fabulous Solite. For it was only by marrying a citizen of the matriarch-dominated planet that one could visit it; otherwise, it hung remotely in other skies, completely out of reach.

Despite himself, Milton tried to put his point again.

"Earth's a poor world," he said pleadingly, ignoring the boredom on her face. "Solite is a rich world. Yet you fall in love with all Earth things. You export

them. You give Earth nothing in exchange—not even your location."

"We like the things of Earth for aspects you do not see," she said.

There it was again, the alien line of thought. He shivered, despite the warmth of the room.

"You don't give Earth anything," Milton complained. He was instantly aware of the meanness of what he had said. He had spoken without thought, his mind filled with a host of other things.

"I'm trying to give you all this," she answered lightly. "Now, please come and smile at some people for my sake."

Although his worries persisted, Milton soon managed to shake them to the back of his mind. The trouble was, he felt guilty to remember that at home his country was at war, while here everything was created for pleasure. It was immensely enjoyable for its own sake. Milton loved these women, for their beauty and for the gay delicacy which concealed the firmness with which they controlled everything. The Solite men he was less enamoured with; they were nice enough, but Milton could not forgive them for being the weaker sex. Old attitudes die hard.

The new bunch of women and animals (they seemed mixed together) that Milton was introduced

to began to rove round the palace with him. All was wonderfully confusing: some rooms had an indoor feeling, some an outdoor; the contiguity of flesh and fur was stimulating; the kaleidoscope of colour intoxicated. Walking with that bright company, Milton found himself besieged with questions about Earth. He answered them almost without thought, as it grew later and the procession became a sort of strutting dance. Inevitably, the gaiety soaked into him, warming his heart.

What they thought of him was clear enough: he was a primitive, odd, perhaps even dangerous, but therefore all the more exciting. They could think what they liked! They could think he was a cave man, provided this wonderful party went on a little longer.

Yet, for all his careless rapture, Milton learnt a little about the civilization of which he had become a member, scraps of information dropped in casual conversation. Solite was mainly a barren world; half the land between the poles was crater-filled and bereft of soil. In the rest, the Solites had tried to create their idea of paradise, raising occasional oases among the deserts. Their oases were being stocked with the fauna and flora of Earth, since their own species were few in number.

"Don't you get plants and animals from other planets in the

Galaxy?" Milton asked one witch-eyed woman. Just for a second he thought she lost her step in the dance.

"Only from your Earth," she said, and dipped away from him in a swaggering glide.

The Solites reckoned their culture to be fifteen thousand years old. They had long ago reached stability. For all their gaiety, Milton thought he detected a core of loneliness in them. But, finally, his sense of difference from them was lost in the excitement of the evening. He was becoming slightly drunk, though he drank little.

Now the palace was like a mirage, shining with people, glittering with music.

"Soon we will move it all down to the sea!" Amada cried. "Such a night is incomplete without an ocean."

Meanwhile, the rooms became hallucinatory. The portmatters seemed capable of any miracle, as the delicate servomechanisms behind them responded to the partygoers' mood. Bright wall drifted through bright wall, rooms floated up and down among each other, bearing their merrymakers with them, so that stars and snowflakes mingled in a beautiful, impossible storm, and angel fish flew among branches of viridian cacti. Hidden music increased in tempo to match the marching decor.

Then Wangust Ilson arrived, last of all the guests. She hastened to Amada and Floyd Milton. She, too, had been to Earth; she, too, had returned with a native husband.

"It'll be pleasant for each of you," Wangust said, beaming warmly at Milton. "In case you ever feel homesick; you shall be my husband's best friend. We don't live far from you."

She brought her Earthman forward. His name was Chun Hwa. He was Chinese.

As Milton and Chun Hwa confronted each other, everyone else seemed to fade away, lost in this moment of crisis.

Clearly enough, the expressions chased themselves across Chun Hwa's face. First, an angry dislike. Then regret for the dislike. Then embarrassment. A pained searching of Milton's face. Finally, a grimace, which said: "Well, this isn't any time to be unpleasant." And he put out his hand.

Milton recovered himself less quickly.

Ignoring the hand outstretched to him, he turned vexedly to Amada.

"This man belongs to a nation which is at war with mine," he said.

A strained silence fell instantly over the whole group. In part, it was a silence of incomprehension. Milton spoke in the Solite tongue, but since, to his knowledge, that

language had no exact equivalents to the words "nation" and "war," he was forced to use the equivalents of "group" and "trouble" for them.

"How can there be trouble between you?" Amada asked, calmly enough, but with a hint of danger in her voice. "You are both Solite men now. Earth is far away."

The words had exactly the wrong effect on Milton. All his feelings of guilt welled up strongly within him. He clenched his fist, part of him aware he was about to act foolishly.

"There is trouble between us," he said. "One of us must leave at once."

"This I don't understand," Wangust said. She was completely nonplussed by Milton's reaction. "You are both Earthmen——"

"Have you ever met before?" someone asked.

"What are these groups you speak of?" someone else asked.

"What is this trouble?"

"Stay out of this!" Amada begged them all.

Chun Hwa began to explain. His Solite, Milton noted angrily, was more fluent than Milton's own. The concept of nationality seemed above the heads of most of the women present; they belonged to a sparsely populated world where the ubiquitous port-matters rendered segregation into groups an impermanent affair.

Amada and Wangust, however, having visited Earth, knew something of the terrible weapons of war, and had even seen the start of the global conflict before leaving for Solite. Both were alarmed to find an echo of that fearful struggle in their midst. During the argument that followed, they let slip another piece of information previously withheld—either by accident or design—from Milton: that now the war was on, no more portmatter houses would visit Earth. He was entirely cut off from his native world.

The Chinese, urbane and conciliatory, had their ear now. Milton, unable to follow all that was said, found he did not want to listen. Perturbation swamped him.

Angrily, he turned on his heel and left.

In its present state of gay upheaval, the palace was an impossible place for a novice to leave. Milton contented himself with moving as far and as fast as he could, agony of mind goading him on.

He was sorry for what he had done here: he was sorry he had left Earth. He loved Amada: equally, he loved his own land. It was a bitter paradox to resolve. His thoughts churned more madly than the hidden music.

He travelled a long way, pushing through the ranks of startled revellers, sometimes being carried

back by the rooms almost to the point he started from. And then the scene changed.

In an effort to fend off the failure of her party, Amada had moved the palace. An electronics officer before his marriage, Milton knew something of the complexity behind this seemingly simple transference of location. Nevertheless, even in his present mood, the wonder of it overcame him.

The great building was suddenly half submerged in a summer sea. Its rear appartments stood on the beach, its forward ones, like the bow of a doomed ship, sunk under the foam. It was night. An illusion of phosphorescence washed against the walls and, by cunning back-projection, appeared to float through the palace itself.

Under the pellucid waters, the participants in a weird ballet began to arrive. Seals bearing luminous globes, lance-like cornet fish, eels, chubs, big purple parrot fish, shoals of doctor fish, dolphins, sharks and manta rays whirled onto the watery stage.

"I've got to get home!" Milton exclaimed, and turned his back on the parading fish.

Breaking into a run, he pressed through the seemingly submerged rooms and finally came to a chamber that, camouflaged though it was, he recognised. He was alone.

He pushed his hand through a floating bunch of syringa blossom. Behind them, he felt a metal

box; opening it, chancing a shock, he probed gingerly for the first terminal. This little box contained the scrambler that, on instructions from the computer housed deep down in the cellarage, maintained this particular room's cubic contents in their desired spatio-temporal location.

Milton wrenched out the wire below the first terminal. As soon as it came away, it dissolved from under his fingers.

The room snapped out of being.

Somewhere, an alarm gong began to sound, then faded out sharply on a dropped octave. The palace vanished.

In the emergency caused by Milton's broken circuit, the computer had recalled the entire building back to base.

Milton fell twelve feet into the slumbering sea.

All was silent. The underwater menagerie had fled. Only a dead sea bird floated beside Milton on the water, killed by the original materialisation of the palace. Overhead, Solite's weird moon burnt, a pregnant crescent; it glowed red and baleful, like an eye whose pupil swims in blood.

Blowing out a mouthful of water, Floyd Milton started to swim for the shore.

"I'm going home!" he told himself aloud. It could be done. The distance to the great port-matter houses which travelled to

Earth was not great; he could walk it. He would smuggle aboard, force them, somehow, to take him back. The call of duty was suddenly absurdly strong.

To get back, he would not hesitate to kill. The Solites were alien; even dear Amada could not understand. She would not even tell him a simple thing like how many light years it was to Earth; therefore, she could not possibly love him. She must be forgotten. Perhaps after the war . . . If there was an after to follow that terrible holocaust . . .

He needed a weapon.

A small pier jutted from the beach. Milton swam to it and hauled himself up a ladder. On the pier, bathed red with the eerie moonlight, stood a wooden hut. Milton broke open the door with one buffet of his shoulder.

Luck was with him. Within the hut hung skin-diving equipment. Fins, goggles, fathometers and waterscopes lay ready for use. And there was just one magnificent speargun—a fortunate concession, Milton reflected, considering the peaceable nature of the Solites. Examining it, he found it was some sort of air-powered job, loaded with a fearsome-looking barb equipped with a cartridge which would explode only when the barb reached its target.

Scooping up a belt of spare ammunition, Milton left the hut

with the gun. Chun Hwa was coming along the pier towards him.

Yes, of course, they would guess what had happened when a fuse blew and he was no longer anywhere to be found. They would hurry back to get him . . . Baring his teeth, Milton swung the gun up and took aim.

"Don't fire!" the Chinese called in Solite. "Floyd Milton, please listen to me. I am not your antagonist! You do not understand—quite evidently you have not been told as much as I have."

"I don't want to hear a thing!" Milton shouted. His blood belled like surf in his ears.

"You must hear! Don't fire at me, please! These people only save us and the animals and plants because the war on Earth will destroy nearly all things. They are our——"

Milton cut him off with a savage shout. He was not listening. Other figures were crowding down the cactus-fringed beach. They were trying to surround him. Someone was running down the pier to him, running to him in the blood-reddarkness. Shouting. Pounding. Mounting anger.

He pressed the trigger. Air whined harshly. Almost at once, the cartridge exploded in its screaming target.

Everything went blank, freezing down into a dull, uniform grey.

For a long moment, the Director sat where he was in the control booth. Such was the vivid impact on him of Floyd Milton's dream that he could almost imagine himself shot by the harpoon gun. When the feeling passed, he jumped up abruptly; something had caused Milton's dream to be cut off. It should not have stopped like that.

With controlled savagery, the Director plucked off his visor, dialled Mains Ops Room and demanded to know what the trouble was.

"The wing of Dreamery Five from which you are speaking," said a smooth robot voice, "has suffered an indirect hit from an enemy Flying Floosie with a 2-ton cobalt warhead. All blankets are already in full operation and repair crews are on the job."

Glancing through the window into the dreaming vault, the Director could see the long line of dreamers stirring uneasily; one or two of them were even sitting up. A giant had come and trodden on their pathetic little magic lantern slides. Soon they might all be awake, running about in panic.

The Director turned back to the phone.

"Inject treble dosage of standard sedative down all feeding tubes in this wing—at once!" he said. That would make them sleep like the Seven Sleepers, and a little

headache could colour their dreams when the circuits were restored. But to that order there had to be one exception.

Hurrying out, the Director went across to the prone figure of Floyd Milton. With one swift gesture he pulled down the double tubes, the silver and the rubber, that bled into the man's chest. More gently, he removed Milton's visor and phones.

"Floyd!" he said. "Floyd Milton!"

Milton's eyes opened; it was like suddenly looking over an empty ocean, grey and sullen, and lost.

"I'm your friend," the Director said, doubtful if the other saw him. "I know now why you came here, and I know you're too good to waste your life here, with these slugs. You can face what you have done—you must face it! Men like you are needed on top."

"I'm a murderer!" Milton groaned. He sat up convulsively.

"I know what you did," the Director said. "You must not call it murder. You did it as a duty, to get away."

Milton stared at him blankly.

"The Solites brought you back by portmatter, making a special journey," the Director reminded him. "I was told that much when you arrived here. So they cannot have blamed you; they saw by your act of killing they did wrong

to keep you there any longer, and so they let you come home."

"You're crazy!" Milton said. For the first time, he looked intelligently at the Director. "They didn't 'let me come home'—they exiled me! They wouldn't have me there one moment longer. They saw I was a caveman, and obviously I had best go back and die on my caveman planet. It was their civilized way of dealing with a murderer."

"But the Chinese, Chun Hwa—he was your enemy," the Director protested. "When you killed him you——"

A groan burst from Milton. He covered his face in his hands, rocking to and fro.

"I did not kill Chun Hwa," he cried. "I killed Amada, my dear wife . . ."

Brokenly, he recounted the scene. It was Amada who had come running along the pier in the crimson night. She had tried to take the gun from him, had even pleaded for Chun Hwa when Milton had threatened to shoot him. At that, an insane stab of jealousy triggered Milton's anger. Without thinking, he fired.

Amada caught the dreadful blast full in the solar plexus. Staggering, she pitched over into the sea. The reel on the gun, as the nylon line attached to the harpoon paid out, screeched wildly.

At the memory of it, Milton

broke into fresh lamentation. The Director stood helplessly over him, one hand on his shoulder. Beyond the Dreamery, more explosions sounded. The governments had promised that this war to end war would mainly be fought on the epic wastes of the moon; well, it was not the first time governments had lied. Just now, the universal tragedy seemed somehow less than Milton's personal one.

"So you never found out where Solite is, and why it remains out of reach," the Director said. "Everybody would have been interested to know that—once."

Blurribly, Milton looked up.

"Yes, I know where it is," he said. "I found out by accident on the way home; they lent me a technical book on portmatters to pass the time. I was too depressed to try and make it out—threw it aside after opening it once. But one sentence I read there stuck. It said: 'Matter transmission is practicable only where gravity factors can operate effectively on the broadcast mass,' or words to that effect."

"Sorry. It doesn't mean a thing to me," the Director said.

"It has only one implication," Milton replied. "It means that the portmatters would not work between planets. And the Solites never managed the incredible jump of interstellar travel. So I realised then that the blood-red moon burned with atomic fires.

I realised that it was *our* moon . . . I realised—oh, everything: that Solite was what we in English call Earth, that the Solites were only Earthmen, of the same stock we are. That my dear Amada . . . if I'd only known sooner . . . was no alien creature at all . . ."

The Director was deadly pale. Harshly, he broke in on Milton's groans.

"If this is so—you are saying they merely came back in time?"

Milton nodded. "Fifteen thousand years," he said.

"Then why did they not tell us? Were they mad?"

"Only kind," Milton said. "They knew we stood on the brink of supreme catastrophe, and could not bear to tell us; they are the descendants of the few survivors of a total war. That's why, directly they had time travel, which was an application of the portmatter formula, they came back to rescue what they could from the holocaust."

There was a loud explosion outside. Dust fell from the ceiling.

". . . This holocaust," he amended.

"Good God!" the Director exclaimed. "This . . . this is staggering news! This changes everything!"

Milton looked up briefly, annihilatingly, at him, then sunk his ravaged face back into his hands.

"It doesn't change a thing for me," he said.

A KIND OF IMMORTALITY

by EDWARD MACKIN

Existing isn't living but that was the punishment meted out under the new act. Life, not death, but life of a special kind. A life devoted to service and expiation—to the ultimate degree.

Asked if he had anything to say before sentence was passed upon him, the prisoner shook his head. The judge placed the white square on top of his full-bottomed wig, and prepared to address him.

"Robin Wade," he said crisply, "you have been found guilty of the wilful murder of John Joseph Riordan. In accordance with the authority vested in me by Act of Parliament, I sentence you to loss of identity, physical readjustment, and mental conditioning for a task to be determined by the Crime Commission, or such authority as they may designate, for a period of not less than four times your natural life span, after which you will be dealt with as the Commission may decide."

Except for a tightening of his jaw muscles, the prisoner seemed unmoved, although he was the first to be sentenced under the new Act. The death sentence had long been abolished, and now the pendulum had swung the other way—with a vengeance. He would live to be at least two-hundred in the service of the community. It was a kind of immortality.

JUD HOPKINS, A MAN IN HIS LATE sixties, but still sharp-eyed and alert, tapped a glass and watched the needle shiver and move a degree.

"Have to report that," he said slowly. "The needle tends to stick and that may mean some back-thrust on the control-rod coils.

That could be serious. We don't want a burn-out. We're a bit short on those coils."

He lifted a handset from a hook, and communicated his suspicions to Control and Planning.

Don Miller, his task-mate, nodded absently and, after Jud had replaced the handset, he said: "Look, Jud. How do you get on top?"

"On top of what?"

Don gestured vaguely in an upward direction. It was difficult to explain just what he meant, and yet all he wanted to know was the way out and the way up. Up what? Up steps, perhaps—or a lift. Don didn't know.

"On top of where we are, and on top of that again until I reach the surface. One of these days I'm going to leave this glorified hole in the ground and take a peek at the real world. You know, Jud, I think we're being kidded."

Jud looked at him sharply.

"You're kidding yourself," he told him. "If you think you can get out of here. Never knew anyone succeed, although a few have tried. They used to have a T.V. tape in the library. Gave you a pretty fair idea of what it looks like now on top.

"No growing things, no nothing. Monstrous black crystals everywhere. And that sky! You never saw anything like it. It was terrifying!"

After task-time, Don went to the library and asked about the tape that Jud had mentioned.

"It was withdrawn a long while ago," the blonde librarian told him. "Why not take a hobby tape, or one of the funnies? Pleasure Group have just turned out a marvellous new funny. It stars Sonny Briggs and you know how funny he can be . . ."

"He stinks!" Don told her.

"We've a nice selection of plays . . ."

"I want to see that tape."

"But I've already explained, Mr. Miller, that it has been withdrawn. We've over fifty thousand items in this library, so I'm sure we can find something else to interest you. Let me know your tastes and I'll run a catalogue through the visual."

The girl was anxious to please. Too anxious. Don's guess was that there had been some instructions from Planning.

"I'm querying that withdrawal," he said coldly.

"But, Mr. Miller . . ."

He ignored her and walked out. Somehow, he decided, he had to get an interview with Riordan. He didn't know how that would help; but no one else seemed to know anything. Riordan knew, if anyone did. Captain John Riordan was king of this funk-hole in all but name. Perhaps he liked it that way. A return to pre-atomic

conditions, in that case, wouldn't suit his book at all.

As soon as he opened the door of his living room the sound rocked him and colour flooded in on his brain. He fought his way through a group of swaying, singing redheads, who clung to him and stretched the length of the room before they let him go. The projector incorporated a full-sensation gadget and to all intents and purposes the studio crowd really were there. He cursed them and stumbled through into his bedroom. The girls snapped back, shimmered and went on singing.

His wife raised her eyebrows at his sudden entrance and sudden exit and settled down again to enjoy the show, dismissing Don in favour of the impeccably-dressed announcer who seemed to be talking to her alone. His smile was intimate, Group-trained, caressing. His words were honeyed. She relaxed in the warmth of his personality.

Don sat on the bed and wondered what he should do with the evening. Iris was comfortably settled with the T.V. He could no more reach her mind now than—he searched for a suitable simile—than he could reach the surface of the earth.

Let's face it, he thought, marriage to Iris had meant three years of boredom. It wasn't just the

T.V. Their minds just didn't touch at any point. Their ideas and ideals were too dissimilar. If Iris could be said to have any ideas—or ideals. Poor Iris! It wasn't her fault. It was his. He was full of impossible schemes and desires.

Like this one of getting to the surface. But it hadn't always been so. Once he had taken life as he found it. The two-hour task, televiewing, parties of every kind, but mostly crazy parties with Johnny Franklin's parties the craziest of them all.

Like that colour party where he had first got to know Evelyn. Even in a community as small as this one, occasionally a fresh face would appear as if from nowhere. That was because of the over-eighteen rule. No minors were allowed at these adult parties.

The colourscope was vocally triggered. Shout a colour. Red, perhaps. You were swimming in blood. Blue, and you were floating in the blue, blue sky with just a suggestion of fluttering wings about you. But with upwards of forty people shouting their preferences the effect could be weird indeed. The highspot of the party was when everyone shouted the same colour. This did happen and at regular intervals. Going in, someone would whisper: "Yellow four," perhaps. This meant that at the fourth call everyone was expected to shout that colour.

The reward was a jackpot of tablets—alcol tablets.

Six alcol tablets and you were pretty high. At this party Evelyn had kept on miscalling so that it became painfully obvious that if she stayed no one would get his quota of tablets and the party would collapse.

"Come on outside," said Don. "I want to talk to you."

She came, meekly.

"This your first party?"

"My very first."

"Enjoying yourself?"

"Tremendously. Those colours. They're so exciting."

"Why did you miscall? You knew it was red-three, didn't you?"

Don looked her straight in the eyes. They were brown, and now that he examined them closely, twinkling with amusement.

"I knew," she admitted. "But it's cheating, isn't it?"

"Sure," he agreed. "With forty people you've got to cheat. Even then it's tricky. The timing has to be just right. With two, or even three people, you can play it straight."

"Captain Riordan would not approve."

"Captain-of-Vigs Riordan is a tee-totaller, and a celibate, who lacks all human failings—or feelings."

"Look," she appealed to him, suddenly serious. "You don't want to get drunk, do you?"

"I don't know," he said puzzled. "What else is there to do?"

"Have you ever thought of what lies outside of this place?"

"I've given it a whirl."

"Have you ever tasted real food? Food so different from that synthetic goo that they dish out through the meal slot that it makes you want to cry?"

"No," he said. "How could I? Have you?"

He was interested now.

"Yes. I was a student in Hydroponics. That's where I do my task now . . ."

She seemed reluctant to go on.

"You won't tell?" she pleaded.

"No," he promised. "But you come back in and shout red when I nudge you." He sighed. "Never mind. Forget it. No strings attached. I positively won't tell. But you've ruined the party for me. Shame, isn't it?"

She smiled.

"I'll go then, and leave you in peace."

"What about my curiosity? I want to taste real food now. Tell me, what does a mess of vegetables taste like?"

She lowered her head so that her face was in shadow as she answered: "They taste like sun and wind, and soft, warm soil. They taste like rain, and the sweet breath of kine, and they smell of freedom. All the things I've read about."

"Say!" he said, astonished. "You're some baby! How'd you get like that?"

"Don't you read books? Doesn't anyone else read books? The old books of Earth?"

He shook his head.

"I guess not."

Sitting on the bed he smiled a bit wryly. Well, now he did. The old books of Earth in the crumbling covers, smelling of dampness and something else. Earth itself, perhaps. Earth as she was before the two atomic wars that practically wiped mankind off the face of the globe. He had tasted real food, too. It was all Evelyn had promised. Forbidden fruit! Her name should have been Eve, not Evelyn. Her task-time was in five minutes. So, if he walked along 3-way he might bump into her. He dressed quickly and went out, without even glancing at his wife.

Luna. 25th May—Service Year 51.

Gradually my capacity to act independently is returning. The very fact that I can make this first personal note provides proof of this. That crashed ship! The horror of it loosened those mental grapnels by which the community held me. Now they have dropped away altogether. It seems there will be no more ships—ever. I must do something about it; but what I have

in mind will take a long time, even if it be possible. A hundred . . . two hundred . . . perhaps three hundred years.

Don had to pass Riordan's office, the door of which was half open. He caught a glimpse of the Captain-of-Vigs as he bent over his desk in apparent concentration. Don hesitated, and then, on a crazy impulse, walked in and closed the door behind him.

Riordan looked up.

"Get out!" he said without any preamble.

Instantly Don felt his temper rise. "Now look . . ." he began hotly.

"You must apply in the proper manner," Riordan interrupted. "I'm very busy at the moment. So get out, or I'll give you three months suspension of privileges."

Inwardly quaking, Don took a step towards the desk.

He was grasped by the shoulder and swung violently around. He found himself staring into the hard, grey eyes of a Vig. Behind him were two more. Don looked at them, at their black riot helmets and their clean-shaven, heavy jowls, at their black and gold uniforms and his anger overflowed in action. He twisted out of the Vig's grip and planted a blow right between his eyes. It seemed to have no effect. The Vig just came on and grabbed him again.

"You damned zombie!" yelled Don, and tried to knee him; but the Vig was too quick and he found himself lifted up and dumped on the floor. He was pinned there by the combined efforts of the three silent guardians of public order and morals.

Riordan came round his desk and looked down at him.

"We are in a state, aren't we?" he said grinning. "Are you sure you wanted an interview or an old-fashioned scrap?"

"Tell these punks to get off me," gritted Don.

"All right. Let him up. Now then," he went on, as Don smoothed back his hair, which was like thick ginger wire, "perhaps you'll tell me what all this is about?"

"I was passing and I thought I'd ask you a question."

"Go ahead."

"Why do we live down here? What's so bad about the surface? I know all about the atomic wars; but how long ago was that?"

"Listen, sonny boy," said Riordan quietly, "the way you are going on you are going to stir up a hornets' nest of surfacers. It happened once before and nothing would convince them that there wasn't a land flowing with milk and honey up there." He pointed to the ceiling. "One man died and sixteen were injured before we got the riot under control. Now *you*

start. You, and a certain Miss Evelyn Corris, whom I suspect sold you the idea. No, we don't miss much and, in fact, I've been debating what to do about you two. You spell trouble for me with a capital tee."

"Why don't you answer my questions, Riordan?" asked Don offensively.

"Sit down," Riordan told him. "You are going to see a little picture show. Spin that last Earth tape, boys. We'll show our young friend what thermo-nuclear warfare did to the fair lands of Earth."

The screen flicked into life. The scenes took Don's breath away. Destruction was absolute, black and terrible. He leant forward in his chair, his mouth agape. The sky was like a septic sore.

"Perhaps you'd like to stay with us now," said the Captain-of-Vigs in a slightly sarcastic tone.

"But that was only shot over an area of perhaps a few square miles."

"We have reason to believe that it was pretty well the same all over."

"How long since? Things may be better now."

"Indeed, they may be. It was a long, long time ago. But there is no way of finding out."

Don jumped to his feet. "But that's ridiculous!" he protested. "You mean to tell me that you can't get to the surface?"

Riordan shook his head.

"I'm not telling you anything of the kind. We *can* get to the surface. Quite easily in fact. Come with me, young man."

He crossed the room to what appeared to be a strongroom door set flush in the polished plastic wall. Selecting a key from a bunch, he opened it. Behind was a very small room or cubicle.

"A very prosaic piece of equipment, Mr. Miller, despite the pretentious door. It is, in fact, a lift. Get in."

They were looking out over a nightmare landscape—an arid wilderness of fantastic rock shapes, and enormous craters.

"Well?" said Riordan after a while. "What do you make of it?"

"It looks like the Moon, or like what I imagine the Moon to be."

"It is the Moon."

Don looked at him blankly.

"This was as far as man got," explained the Captain-of-Vigs. "A colony was established, and then forgotten when the wars began, except for one rickety spaceship which crashed on landing. There were fifty people on that. They were killed; but some of the equipment was saved and a few miscellaneous items including that tele-tape of Earth. We've been waiting for Earth to re-establish contact with us. We are still waiting."

"But everyone believes that this is Earth. That they are in some kind of modified atom-proof shelter. Why don't you tell them the truth?"

"That would be psychologically unsound. The legend is a natural outgrowth of the desire for Earth. In any case, there is no point in their knowing."

"Supposing I tell them?"

"They won't believe you; because it is something the majority would not wish to believe. You are different. You and the girl Evelyn. I'm sorry for you both. She *will* believe you."

"Save your sorrow," said Don bitterly, "for the men of Earth. I'm a Moonman. I was born here."

That hurt more than anything. He had been so proud of Earth, and things Earthian; and he wasn't even a native of Earth. All his dreams of Earth fair and fruitful, a place of sunshine and silver streams, of tumbling rivers and mountainous seas and the great forests swarming with life receded and faded into the harsh dust and grotesque hills of Luna.

He brooded for days, trying to re-orientate himself. Something was gone, something irreplaceable, leaving a vacuum, an attenuation of spirit that left him feeling as though he had been bled dry. He was a spiritual husk waiting for the winds of circumstance to blow him any which way.

Even his wife noticed his quietness.

"Is there anything wrong, dear?" she asked, punching the meal-slot buttons for their lunch entitlement.

Two plastic plates slid onto the table. Don looked at the shimmering heap of nutrient, an unappetising pearl-grey goo, and pushed it away.

"Let's have a drink," he said and pressed the alcol button twice.

Two small sachets slid out. He broke one and drank the contents at a gulp. His wife took the other and, carefully tearing a corner from it, sipped at it daintily. It had a warming, cheering effect; but it didn't last for long and pressing the button again would only produce a Vig to inquire after his health. And issue a warning.

"You haven't answered my question, Don," she said a bit peevishly. "What's wrong with you? You hardly speak to me now."

"There's nothing wrong," he said. "Nothing that you'd understand, anyway. I've been lifting myself up by my bootstraps for the last couple of years, that's all, and Riordan just called my attention to it. So here I am sitting on my bruises and looking for a way to get up."

"Yes, dear," she said vaguely,

and sighed. Don seemed to delight in talking in riddles. "Shall I switch the viewer on?"

"Please yourself," he said equably.

Poor Iris, he thought. Or was it poor Don? She was happy enough in her own unimaginative fashion, and her decision not to have any children, which had infuriated him, was a sensible one after all. What was the use of bringing children into this . . . this limbo! Yes, he thought, that is precisely what it is. A kind of super waiting room. A place where people wait their lives out for a ship that never comes, generation after generation, until the mind takes refuge in myth, and you are at last where you wanted to be—home on Earth—till some fool pushes his nose out too far and sees more than is good for him. You can't live with that kind of knowledge, and yet—somehow—Riordan had. If he can, he told himself savagely, I can. He went into the bedroom, dressed and went out with a brief glance at Iris. She was surrounded by a laughing world of colourful make-believe, completely oblivious to his exit.

Johnny Franklin was having a balloon party. He handed out the plastic hats and funny noses.

"Here you are, Don," he said. "Here's a real boozer's beak for

you and a jester's hat. Jester remind you to come more often . . ."

He broke off and roared with laughter at this feeble pun. Don put them on without comment. He was determined to pursue normality to the bitter end. Somewhere along the way there might be a substitute for happiness. Give it a whirl, he thought, and forget about Earth . . . if you can.

Johnny fired a toy pistol and there was a mad rush for the bedroom, which was filled from floor to ceiling with red, blue and yellow balloons. There were screams and giggles and shouts and continuous popping noises as the balloons began to burst.

"It's a special process," Johnny was shouting, "invented by me. They're oxygen-filled with super-alcol in suspension. That's pure alcohol plus . . . Get merry, folks! Come on and breathe deep. Let's get blindo!"

Presently the place was full of alcoholic fumes and the floor was slippery with wet balloon skins. Balloons were continually bursting as the guests stumbled about, tripping over chairs and falling on the beds, where some of them lay in a state of obvious inebriation.

Then the music began. One of Johnny's specials. A tape of wild, sad, gypsy rhythm, played faster and faster, with everyone trying to keep time with the music; dancing, beating time, or shouting

at the top of his voice. It was the ultimate in cacophony.

Deafened and blinded by the screaming women and their yelling escorts, more than half drunk, Don staggered out into the passageway and, muttering to himself, made for the Hydroponics section. He didn't quite know why, except that he wanted to see Evelyn.

"We're going to hell fast," he told himself thickly. "Evelyn, you're the only real person in this ante-room to nowhere. The rest are puppets, with strings to be pulled by anybody . . ."

He was still muttering to himself when he stumbled into her. She was closing the green door of the Hydroponics tank room.

"Evelyn," he said. "I want to see you."

She opened the door again and guided him inside.

"If the Vigs see you in that state," she said, "they'll stamp you *drunkard*—and you won't wash it off your forehead for a week."

He was looking round at the plastic tanks with their Earth-green vegetables and small fruit trees in every stage of cultivation.

"Why do you do it?" he asked bitterly. "What's the purpose of it?" He took in the contents of the room with an angry sweep of his arm. "There isn't enough to go round, so no one gets any."

"There may be some day. We'll be able to plant them out on the surface . . ."

"Bluff!" he shouted, and strode towards the tanks. "Riordan's bluff! Do you know where we are? We're on the Moon." He picked up one end of the nearest tank and tipped it up. "You don't belong here!" he yelled at them. "You're Earth plants. This is the Moon, the Moon, the Moon . . ."

He was savagely kicking the plants about now, squashing and tearing them, smashing tanks and emptying the neatly stacked bags of plant food all over the place.

Evelyn followed him round, crying in terror, pleading with him to stop. Something inside of Don looked on in horror, too; but something else drove him on. He was like a man possessed.

Suddenly a Vig loomed up from nowhere and a gas pistol spat its tiny capsule straight into Don's face. He went down in a red mist, his arms still flailing as he hit the floor.

Luna. 3rd April—Service Year 560.

The project is completed and the miracle rests like a great grey egg on the ocean-deep dust of Luna. How long it has taken! Yet somehow it doesn't seem longer than a normal life span. This applies, perhaps, no matter how long one lives. There is a deep mystery here. How

long? Long enough. Time to learn. Time to build. Time for expiation.

Don opened his eyes, and shivered. He felt as though he had just climbed out of an ice box. Riordan was putting a hypodermic back into its case. He laid it down and felt Don's pulse.

"You'll be all right," he said. "Put on these clothes."

Don slid off the table and was shocked to find that he was naked.

"What happened?" he asked, slipping on a coverall and zipping it up. He felt curiously weak. "What happened?" he repeated. And then he saw Evelyn, apparently dead, being lifted from a transparent plastic capsule, an oval sarcophagus half-filled with bright golden fluid. She was laid on the warm, padded table and Riordan, with a strained expression on his face, took another hypodermic and was filling it when Don grasped his arm.

"What the hell are you doing?" he yelled.

His hand was prised free of Riordan's arm by one of his Vigs, who pulled him back and held him while his Captain gave Evelyn several injections in both arms, and then waited. Don was cursing him and demanding to know what he was at. Riordan ignored him, his brow dark and anxious.

Then Evelyn stirred and opened

her eyes. Riordan gave a deep sigh of relief. He felt her pulse.

"She'll be all right," he said.

"Where am I?" she asked, looking round. And then, observing her own damp, naked body, attempted to cover herself with her arms and hands; sitting up on the table and looking round in bewilderment.

"Get this on," said Riordan, handing her a coverall. "Now, you two," he added cheerfully. "I've something to show you." He strode across the room, a curiously curved room, and depressed a switch on a control panel that was a mass of gleaming instruments.

A curved panel slid to one side, revealing a viewport. Riordan called them over.

"Take a peek at the surface," he said, with that sly smile of his. "Because that is where you are both going within the next few minutes—right outside."

"Evelyn had nothing to do with wrecking Hydroponics," said Don quickly. "I forced her to open the door. Throw me out, if you like, but not Evelyn."

The Captain-of-Vigs shook his head.

"You've got it all wrong," he said. "Take a good look."

Don's hand reached out for the girl's and they both came forward together, but hesitantly. Then they gapsed.

They were looking over a green expanse of grass and weeds into a city . . . A city in ruins. Giant creepers embraced its crumbling buildings, and huge trees—primeval in appearance—had thrust their way through brick and steel and moss-slimed concrete. Something scurried about in the grass, zig-zagging aimlessly.

"Rabbits," said Riordan. "Hardy creatures, rabbits. The only animal that survived. Another million years and they might be using tools and killing each other. That's civilization."

"I don't understand," said Don in wonder. "This isn't Luna."

"No, it isn't Luna. This is Earth. Mutated vegetation, practically unaffected rabbits and no trace of human life. We've been all over, setting the ship down in a thousand different places—calling and searching; but there is no sign of man. This is all that remains of his proud works."

"It's no use," confessed Don hopelessly. "I can't orientate myself to this situation at all. I can't even think of the right questions to ask. How about you, Evelyn?"

"I don't care," she said, a fierce, hungry light in her eyes as she looked out towards the city. "I don't care. We're here—on Earth, and it's beautiful. That's all I care to think about."

"The slate has been wiped clean, and you can start again," said the

Captain-of-Vigs. "You two are the last of humankind."

"But what about Jud, and Iris, and Johnny Franklin, and all the others?" asked Don desperately. "For Heaven's sake, Riordan, what are you giving us?"

Riordan looked at them for a space as though debating the possible effect on them of what he had to say. He told them flatly: "Jud and Iris, and all the others, and the thousands that followed them are dead, all dead. You've been in a frozen chemical sleep, a state of suspended animation for over five hundred years. In fact, ever since my Vigs took you with a squirt of gas. We could have done it for all of them; but I would have been exceeding my authority. I had no orders. My orders were to hibernate the trouble makers only. They were to be returned to Earth for psychological treatment. In a way, you were lucky. The rest went on and on, and the birth rate went down and down, and there was nothing we could do about it in the absence of direct orders from Earth."

"Yet you remain. How come? It sounds crazy to me."

"Captains-of-Vigs don't go crazy," said Riordan with that slight smile. "They don't die, either. Your ancestors were cleverer than you think. Far cleverer. Too clever. There was a Riordan once. I killed him. Never mind why.

That's not important any more. They didn't sentence me to death—they sentenced me to immortality, and the burden of a name I hated, simply because I hated it. It was part of the conditioning.

"I think that, subconsciously, my generation worshipped Death. The very fact that they used immortality as a punishment for crime is an indication of their state of mind. It was Vinogradov, a twentieth-century scientist, who first discovered the importance of radioactive potassium. You will find it in all living tissue, and it is responsible, in a large measure, for genetic mutations; but it is also the seed of death. It dances to the self-same tune as the deadly cosmic rays, with about fifty times the CR impact rate.

"Deprive the flesh of its malign influence, along with some other vital but life-shortening influences such as certain of the glands, and you are left with a machine of flesh, in most cases a robot like one of my Vigs. I came out of it somewhat differently. I had to. They had a special task for me . . . This is the way it turned out."

"But the ship—the spaceship! Where did that come from?" asked Don. "From Earth?"

"No. We built it. My Vigs and I. Given enough time anyone can do anything. We had all the time in the universe. But, due to the conditioning, I had lost the use of one

of my mental muscles. My free will. It was like a numb member. Gradually, over the years, it returned to me; but it hurt. That's why it took so long to complete the project." He looked over their heads out to the city, frowningly. "I have expiated my crime, if crime it be. I owe my species no more, and no less, than I have given.

"After you leave this ship I am heading for the stars—impelled by my sense of wonder. They seem to have left me that . . . Some day I may return." He looked at them,

quizzically. "Say, in a thousand years time . . ."

They stood knee deep in the cool grass and looked up at him. He seemed to have grown in stature.

"Goodbye!" he shouted, and then closed the spacelock.

Hand in hand they went towards the city; but a sound they had never heard before made them turn. The little ship was streaking across the heavens on purple-flickering jets and getting smaller and smaller.

"Goodbye!" said Evelyn softly.

FORECAST

How do you kill the man you are employed to protect? Or guard the man you have sworn to kill? In **AMBIGUOUS ASSIGNMENT** Kenneth Bulmer poses such a problem and manages to provide an answer. How? You'll be surprised.

SECOND FROM THE SUN is the title of the companion novelette next month. A story set on Venus, a wide-open yarn of adventure and danger; danger from the native life and danger from more familiar things.

MUSIC SOOTHES THE THROOBY by Robert J. Tilley introduces a new author with a peculiar sense of humour. Very peculiar.

AND THE GLORY by A. Bertram Chandler tells of a space ship with a strange cargo and a mind of its own.

INTERRUPTED VIEW by Robert Presslie shows once again that no woman really has logic, only an inspired intuition. Or maybe it was logic at that?

LINDA by James Evans points out the dangers of loose talk. In space, naturally, a man will talk to his companion. The trouble starts when he chooses the wrong subject and the wrong listener.

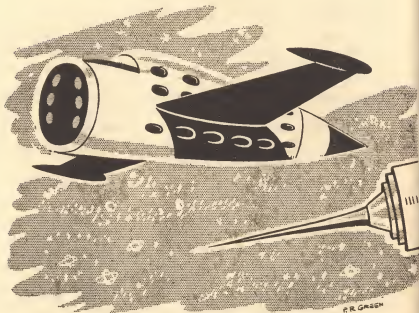
THE ANCIENT ENEMY by Philip E. High opens with a bang and races to a stunning climax. Seems that anyone who tries to invade us won't have such an easy time after all.

Nightride and Sunrise

by JEROME BIXBY

It was just a journey between the stars, but this time a journey with a difference. The difference being the extra, invisible passenger which rode with them. Murder!

Illustrated by P. R. GREEN



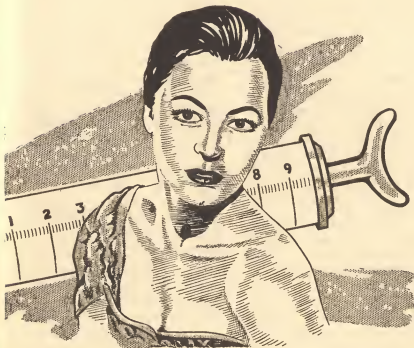
TUESDAY, 3.15 P.M., SHIPTIME.

I CAME OUT OF IT FAST—I ALWAYS do. After twelve years of constant use, *inertite* doesn't leave much of a bang in its hangover. Even at that, though, my head felt like a baked potato; I waited until it settled down. Then I opened my eyes and blinked myself alive.

By my bunk, the port was writhing with colours: a thousand rainbows in combat, laced by the

un-named star-colours that are the coronet of hyperspace.

My gimmick—the autohypo, that is—came out of the wall again, scanned for me with its radar pin-wheel, and made a determined pass at my arm. I dodged the needle, swung my feet off the bunk and into my sandals on the floor, yawning. The gimmick considered these movements, decided that I was awake, ergo its job done, and went



back into its cubby and turned itself off.

I got up and reached at the dial-studded wallboard over my desk, pressing the button that activated every slamband in the *Starling*. A hundred needles spat *restorite* into a hundred wrists. A hundred people jerked and twitched up out of their drugged sleep, crew and passengers alike—I could tell because I could watch their metabolic processes scurrying toward normal on the wallboard dials—and most of them would immediately start to feel sicker than a goat in free fall.

I collected my kit, checked on myself in the mirror—my imagination saw another grey hair or two—and went out to ease the sufferings of the brood.

Fletcher's eternal postswitch nausea I squelched as usual with a piece of peppermint candy. His illness was largely psychosomatic, and I dreaded the day I'd have to report that Fletch was becoming too neurotic for hyper-space piloting. A good man, a fine one; but the responsibility was getting him—just as it gets them all. He grinned at me, and said: "Whatever this is, darling, it's wonderful stuff!" He sucked on the peppermint. I agreed with him. The human mind is also wonderful stuff.

I went the rounds of the operations rooms, handing out pills and taking pulses and peering into pupils. No more *restorite* needed

here; these guys were all old-timers like myself.

In astrogation I came upon a green-faced kid.

"Hello," I said, "you're new this trip."

He started to salute—I do wear a colonel's stripe, God knows why, I certainly don't rank the captain—and I had to "at ease" him. His pupils were dilated, his pulse blurred and banging with tachycardia.

"You'd better go off duty for a while, son," I told him. "Go down to your cabin and read, maybe take a radiogen bath."

The clear call of Duty or Death, the old Academy foolishness, stiffened his back. He smiled and said: "I'm all right, sir," and avoided my needle. Beneath that smile he felt like hell. I knew it, and he knew I knew it, so I didn't argue. I said: "Well, this'll do for the time being," and gave him a stiff emetic.

Fletch grinned; I'd pulled the same trick on him, his first trip out. "That'll do it nicely, honey," he said.

Our new assistant cosmographer thanked me and turned back to his chart desk, where he began to hunch lower and lower. Finally, after less than a minute, he excused himself with a reproachful look in my direction that told me I was a bum doctor.

"And so, Fletch," I said, "it goes. If you're going to live by

inertite, you've got to respect it." I snapped shut my kit and headed for the door. "Any odd stops this trip?"

He shook his blond head. "Straight through to Goran III, no specials."

I descended the spiral stairwell, past my quarters, down to the passenger level. The green-and-chrome roundabout corridor was significantly deserted. I studied the physiograph card slotted on the door of the first cabin, then buzzed for a view just to make sure. The guy inside flashed me right away; he was an old hand at hyper-spacing, sure enough—he was reading comfortably, gave me a wave.

Sometimes they try to fake it, but you get so you can spot them. Out here, a doctor has to be a Jekyll and six benevolent Hydes: physician and surgeon, physiologist and psychiatrist, chemist and ecologist, father confessor and general factotum. He has to be brave and resourceful (that's what the travelogues say) and more than a *bissel meshugeh* (that's what I say).

At cabin 32 I needed it. When I buzzed, the viewer took a long, one-way look at me. The suspicious type. Then a woman's voice said: "Come in, Petey dear."

My shoulders twitched. It ran down my arms to my hands. I pushed open the door and said: "Hello, Nyra."

She looked about the same. Spaceblack hair; blue eyes, a little too light, much too shrewd. Passionate mouth, the rest of her built to match. She had on a white travelling outfit, drastically cut back. I saw that she still dressed, at thirty, like a hopeful nineteen.

"Hello, Petey," she said. "Long time we don't see each other. Someone told me you were on one of these ships; I didn't know it was this one."

"Or you'd have taken another."

"I'm sure I wouldn't have cared much either way." She showed her sharp little teeth that used to shiver me through. Now I thought they looked like the incisors of a young dog.

A very young man came unsteadily out of the bathroom, wiping his face with a towel. I looked at him with pity, and, since I'm human, a touch of academic jealousy. Nyra pasted herself onto his arm. "My husband, Larry Stone," she said smugly. "Larry, this is Doctor Peter Miles, a very old friend."

His hand was dry and warm, and I thought he seemed like a nice sort; tall and wide, probably a bear-cat of a lover. Trust Nyra to pick them. She'd never stopped picking—even during our marriage.

"A very old friend," Nyra repeated, with just enough overtones to stiffen Larry's big hand in mine. His eyes flickered behind his smile,

and I thought, *Tough, kid—you're on your way out. Do you know yet that she's tired of you? Want a membership card?*

I went through the motions of tending them. Nyra, like my customer in the first cabin, was used to the inertia drug. But Stone was walking in circles, and how that boy hated to admit it! I finally got a sedative and some *restorite* into him, and all of a sudden he was asleep.

Then, before I could escape gracefully, Nyra had turned on the heat—with nothing more interesting in mind than to see how uncomfortable she could make me. She kept herself between me and the door, her eyes mocking me. I sparred with her, but I'd never been able to beat her at that game, and I couldn't raise my voice in purple prose because Larry's drug-ridden sleep was disturbed and precarious.

At last I did something I'd wanted to do for a long time. I grabbed her and pulled her against me. She came right along, looking cool, helpless and a little outraged. I could read in the brightness of her eyes that she had about had her fun, and was ready to yell and sic her husky Larry on me.

I played it that way. I bent as if to kiss her—she would let it go that far, just for kicks—and at the last moment I clamped my hands hard around her throat.

Her yell bumped against her

closed windpipe and went back down again in a hell of a hurry. Her eyes were so wide that I could see the edges of the red membrane that lined the inside of her eyelids. Then I talked to her, in a low, rotten voice.

I went all the way to the end of the nasty speech I'd so often dreamed of whispering into that pink, almost-transparent ear. Then I repeated parts of it I thought would bear repeating. Then I left.

I would have slammed the door, if a sliding spaceship door could be slammed.

Three more cabins—two more headaches and a poor devil who wouldn't come out of his bathroom; I left him a pill on his bed—and I got another shock.

The voice that said: "Wait a minute," was pure, clean honey—golden tan, shining and sweet. I knew it well; and when she flashed me, I recognized her from many video viewings.

It was Merlin Gale. I was afraid of staring when I went in, but I didn't; I gawped. Her hair was black, like Nyra's; but whereas Nyra was strictly boudoir, Merlin Gale was sunlight and out-of-doors. Her eyes were a smoky autumn and her skin tea-rose. If I had ever thought that she was only a product of the pretty-poison greens and blues and leads that get painted on video faces to make them look

acceptably inhuman to the ike, I knew better now.

I looked around for a husband. I didn't see one. Nor any sign of one.

"I'm," I said, "the ship's husband. I mean, the houseboat's physician. Oh hell, my name is Peter Miles and I'm a doctor, and how do you feel?"

She was sitting cross-legged on the bed, amid a litter of magazines from the *Starling's* library. "Doctor?" she murmured. "And so nice looking, too, in a stuffy sort of way . . . all that distinguished grey hair, and you're not over forty at most!"

I dropped my kit on my foot. "Thirty-eight," I said faintly. "The grey is hereditary."

"I feel awful," she went on cheerfully. "I'm glad you came. I've been toying with the idea of opening my port and ending it all."

"The port won't open," I said, "and you *look* wonderful."

I picked up the kit, fumbled out a capsule, saw that it was a cathartic, and felt around for the right tin. It evaded me with studied perversity; I finally had to take my eyes back into my own head and use them to search the kit.

My confusion kept her smile alive. "Are you always so distracted, doctor?"

"Nothing rattles me but perfection," I replied gallantly. I was rather proud of that reply, and my pride carried me right on into plain foolishness: "But please don't think

me impulsive, Miss Gale. I've loved you for years." Which was the truth, of course; bachelor space-men can hardly survive without some *Wunschmädchen* to carry them to and fro across the barren light-years. I had found mine—and here she was.

She leaned back, hugging her knees, and studied me with open interest. "I believe you," she said. "And I think I like it. You're the only interesting person I've seen aboard this coffin. What do you do when you're *not* rattled?"

I finally found the right tin of capsules. "I doctor," I said. "But if you get any more candid with me, you'll have to take over. I've had a rough day." I made vague motions in her direction with the capsules. "Uh—you said you weren't feeling well——"

She laughed and put out a warm hand. I sat down beside her on the bed, for the simple reason that I couldn't have stood up a second longer. "No pills," she said. "My dad and I used to space this galaxy from Sol to Magellen—inertite's old stuff to me."

"But you said——"

"I was bored. Reduced to reading those horrors you're sitting on. But you've cured that already, Doctor Pete."

She was grinning like an imp. No woman was going to work faster than Peter Miles. I gathered together my animal magnetism,

which had been without a keeper for a long time. I said: "Dinner at six?"

"Six-thirty," she amended. "I'm doing a ship's broadcast. Jackson talked me into it, and I've got about two hours to dream up an act."

"Jackson?" I said bitterly.

"My agent. He's a dear. He has seven children and they all look like him—that is, rather like a rabbit. I don't know how he does it!" She gave me that wonderful smile that was the end of roaming, and walked me to the door. "Out now," she said. "Where do we meet?"

I told her—dining salon, third level bow, ask any steward—and left in a daze.

Back in my own cabin, I began to set out and check the needles for Goran III. This time, when we side-stepped out of hyperspace, the passengers wouldn't wake up for quite a while. Not, in fact, until I had pumped them full of antitoxins.

I glanced at my schedule: twenty-seven hours, a little over, to Goran—six more hours in hyperspace, the remainder on planetary drive. Then what? I was thinking about Merlin Gale, of course, but when I discovered that I'd been working on the Aldebaran VII needles I pulled my moonstruck self together and got down to business.

The job done, I strolled up to

Control. Fletch was slouched in his big swivel-seat, staring out at the rushing varihued blur of hyperspace. I didn't have to read his thoughts to know them—I'd heard them all, often before, in the deliria of pilots a good deal farther gone than Fletch:

A hundred people—a hundred lives—got to world them—two light-years every second—what happens if—my God, maybe the—if I've made a mistake somewhere—

I dropped a hand on his shoulder. "Thinking about home, Fletch?"

"Yeah—in a way, lover-boy." He looked up at me. "This hyperspace run is freaky, isn't it?"

"All situations are freaky," I said. Standing beside him, I studied his blink-time against my own pulse-rate. "The reason people never learn anything from history is that most 'future' events break totally with the past. If you can't develop an attitude of total acceptance toward whatever the future might bring, you're in for a continuous series of nasty shocks."

Underneath this cushion of chatter I was watching him as closely as I dared. The flight wasn't over, but already it was clear that Fletch was through. I'd have to report him out—and I hated like blazes to do it. When we got to Goran, he would go through a company conditioner. He wouldn't know what it was, though; it would look like a runabout, or a small

office, or a video booth. But when he came out he wouldn't want to hit space any more. He'd want to go back to Earth and buy a farm, maybe raise a family. The company would supply the farm.

I was still gabbing. "After all, why should the hyperspace run be any freakier than anything else?"

He rubbed a hand across his mouth, stretching the lips. "I—can't make words out of it." He was blinking steadily, but at unnaturally long intervals now. With each blink his pupils got bigger. "There's something wrong out there, baby. No stars—lotta colours—ever try to figure out what hyperspace is like, actually?"

"No, Fletch. I've been told that it isn't really like anything, that it's a mathematical fiction. That's good enough for my poor brains. But if the colours bother you, why look at them?"

"They come through my eyelids—I sit here—with a hundred people under my tail—drowning in rainbows—I—I think just think what if I *didn't* then *maybe* and all those people and——" He was on his feet, and I hit him with the hypo on my ring—under the guise of clapping him on the shoulder. He'd think he'd passed out of his own accord; essential, or he'd smell the conditioner coming.

There's a fast turnover on hyperspace pilots. Hard come, easy go.

Ingres and von Bietz helped me lug him to his quarters. We laid

him out on his bunk. He was smiling a little.

"It's a wonder," von Bietz said slowly, "that this didn't show up during his pre-flight screening."

My own eyes were on Fletch. I'd seen older and tougher men pull the same thing. The job was basically intolerable, and that was that; but it wouldn't do for an answer to Beetsy's implied question.

"There's a late pregnancy in cabin 18," I said shortly. "God knows how *she* got an okay for hyperspacing. But that's the way they run this line. Them as don't like it can hire out to the Mars ore run, I guess. Barring that, suppose we drop it about Fletch; he'll have it tough enough from now on."

They stood by silently while I wrote an explanatory note to Captain Stanard. I gave it to Ingres and he left for the bridge; he was up for senior pilot now that Fletch had folded.

I checked Fletch once more—he'd come out of it in roughly three hours, and then there'd be a nasty hour or so. Then Beetsy and I walked back to Control, without words, and looked at the colours.

An hour later, the pregnancy in 18 set about clinching my point to Beetsy. The *inertite* had hit her, but good. A flustered steward called me down, and I found her in the last stage of labour. I want to go on record as saying that modern obstetrics are harder on the doctor

than on the mother; she was smiling and making with ship's gossip while I sweated like a Gany on Venus. And devil take the thick-thumbed execs who won't give a space-medico trained help; they must think a high salary buys them a sorcerer. A breech delivery is a bad do for one man.

At last I spanked, and there was a healthy blatting. I left mother and infant, the one radiant and cooing, the other making like a prune wired for sound, under the wing of one of the salon waitresses; one who had been through being a new mother several times. Seeing the maroon salon-uniform reminded me of my date with Merlin Gale. I looked at my watch and swore. After eight already. I damned near spaced it to her cabin; she was there, smiling.

"Boy or girl?" she asked immediately.

"Girl——" I sighed with relief. "To be named Petrina, after me, poor accursed infant . . . I'm glad you knew. I'm terribly sorry, it was black of me not to let you know."

"A nice young lieutenant called me from the control room. He said you'd left swearing like mad, damns and blasts and the blankety-blank desk-chair spacers, so I expected you to forget."

Thank Heaven I'd done some male boasting to Ingres . . . but maybe Merlin would rather I hadn't? Or was it apparent that I had? Maybe it had been just as

well . . . I was one sadly confused medico.

"Tomorrow night, then?" I said, tentatively.

"Same time, same place."

I said: "Same people——" and our gazes locked. Then, as I turned to leave, she put her hand on my arm.

"I've met a lot of heels, Peter," she said. I knew what she meant. The Bachelor Girl of the Telewaves was famous for skinning wolves alive.

"Out here a guy doesn't get much chance to practice that stuff," I said shakily. "Or it could be I'm too old."

"Oh!" She smiled slightly. "Not that!"

I moved in.

"Now *git*, Doctor Pete," she went on hastily. "I have a thought or two to think before tomorrow night." And I found myself outside the door, with it closing on me, and she was still smiling to draw out the sting.

I took my excess nervous energy back to my quarters and used it to recheck the Goran needles. I don't keep a diary, or I'm sure I would have filled it with bad poems. At my age!

I was still checking when Stanard buzzed me.

"Petey," he said. Only the one word, but all of a sudden there was a menacing rub to the air. You globe-lubbers wouldn't know the

feeling. But a spaceman knows it too well.

"What's up, captain?"

"We don't know." His big face was all red angles in the screen, tight and watchful. "I've checked the master board and everything is dokey. But something's gone foul, I can smell it from here."

"So can I."

"Come on up to the bridge, then. Maybe we don't know what it is till it breaks, but we'd better hold a caucus."

He didn't mean Fletch, of that I was sure. The Spectre—go on, laugh—was in the hull. Stanard was already thinking of throwing everybody on inert at once, though the colours of Goran wouldn't separate out from the warring rainbows for another two hours; he would call a caucus for no other reason.

As I passed Nyra's door, I heard quarrel sounds.

I looked to the lifeshells and checked my bulger. The caucus would find nothing wrong; we would smoke and toss it around and end up nowhere; but the Spectre would remain, and would pay off in red. The spaceman's Spectre is honest: it makes no promises it can't over-fulfill.

I'd remember this trip—if I was able to get off at the end of it.

TUESDAY, 10.48 P.M., SHIPTIME.

Flick.

My port was hung with salted

velvet. We were out of limbo; the universe was back in space. My little monster zoomed hastily for its niche.

Everything was—normal. There was a yellow dwarf visible off to starboard—my side of the ship. That was Goran, with its family of six and no grandchildren; an Edge-system, with the outpost stars of the Milky Way curtaining half its heavens, and the rest an unimaginable black, sequined with far-between glows that were not stars but galaxies. I thought how glad Fletch would be to see it. It was all in all a lovely sight, and in the clear monochromatic light the Spectre seemed to evaporate. I gathered my needles and a leather case of capsules and ascended to Control, picturing a honeymoon on a world without a moon, but (forgive me) with the honey.

Ingres came out easily, and set about touching up his course, bouncing the ship a mite this way and that to get the feel of the board. He kept sneaking glances outport at Goran, obviously satisfied with the precision of his first personally organised heave-ho out of hyperspace.

Beetsy, on the other hand, simply wouldn't wake up—it happens that way sometimes, and can frighten the hell out of a young medico the first time—so we let him sleep it off in his chair. His snoring was sinful.

Our junior cosmographer glared at me—the story of my perfidy had

evidently reached him—but submitted to my supplementary dose of *restorite*. His pallor vanished almost at once, and his eyes began to sparkle. A grin started in them and spread to his lips; I threw it back at him, and that was that.

I took the kid along with me on my rounds to familiarize him with the routine. He had had nothing but standard spaceman's first-aid training, but he made a good helper, handing me the correct needles as I called their colours. We made the rounds of the gang in Operations, pumping serums, vaccines, toxoids and antibodies wholesale into them and rebalancing their hormone systems to resist—or, rather, accommodate—conditions on Goran III. Then, as we left each cubby, I gave each man his shot of *restorite* and we escaped before he became sentient. For an hour they'd all feel like absolute hell, and it was better that they be left alone with their misery.

My blasé friend in the first cabin was up already and playing himself a quiet game of Asteroids. Evidently he was somewhat *inertite*-resistant after so many years and had snapped out of it by himself. I asked him, and got the right answer: travelling salesman. I don't think I've ever seen a tougher specimen; not even our immunizing routine bothered him. It's a pity all of them aren't like that. I'd have an easier job—if I had one at all.

Larry Stone was sprawled on the bed, but Nyra wasn't around. Went walkabout, no doubt, in defiance of the alarms, and got dropped somewhere 'tweendecks or on the promenade. Her hard luck; I could trust *inertite* to keep her pinned indefinitely. Wonderful stuff *inertite*; does things to your atoms. At least I think it's atoms.

We hit Jackson, Merlin's rabbit agent—the noise that had refused to come out of its bathroom—who proved to be somewhat of a problem; he was sex-hormone sensitive and I had to run a titration on his blood-serum to determine what fraction of the usual shot he could take without going into aliphatic shock. The kid watched with interest, until just before the *restorite* shot, when I sent him on to Merlin's cabin to bare and bind her arm. Then I stuck the rabbit for the last time, got an appropriate squeak, and ducked out the door.

At that moment I heard the kid scream. I've spaced a long time, and heard ship's hulls ring with terror before. I ran.

He was leaning against the wall, doubled up, with his arms folded across his stomach. That time he didn't have me to blame for it. I closed my eyes so hard they clicked, then looked again. It was still there. It was stupefying—the ultimate nightmare of every hyper-space medico.

Red, red, red, all over the place.

Some blobs of white and grey, some things that looked like flattened ropes, some things like chips and splinters of stone. Everything that goes to make up a human being, spread out for inspection—literally painted on walls, floor, even some on the ceiling on the far side. Smeared by a hard-striding giant. Mad red mural of instant, violent extermination.

A red mural that no one could ever identify as Merlin Gale.

I went quietly insane. I told the kid to call Stanard down here fast, and he moved off crabwise. I began to cry. I ran my finger along the door jamb; it came away wet and I closed my fist on it and shook it at the air and at God.

Stanard came, his face a baby pink—the pallor of shock bleaching out his spaceburn. He'd seen all this before, in the old days, but it's a thing to which nobody can become calloused. A corpse is one thing—but this profane wash of human stuffs . . .

He looked at the cabin number. "Miss Gale?" he said. He knew it was. His mouth tucked in at the corners; his eyes were bleak holes, nightbound craters on the surface of his skull. "What happened, Petey?"

"I don't know, Cap, I don't know——"

He put a hand on my arm. "Pull yourself together, man. You've seen——"

I shook it off. "Get out!" I screamed in a whisper. "For God's sake get out!"

He didn't get out. But then he understood.

There wasn't much to look at except the garish fact. I picked up the slamband that lay in the swamp. I looked at it. Then I wrapped my handkerchief about it.

Stanard looked at my face, and what he saw jolted him back a step. "Petey," he said in a heavy voice. "Will you let me say that accidents do happen? You were saying the same thing to Fletch a while back, if Fletch's babbling means anything."

My voice, thread-thin, began to tear words out of my brain. "No accident. Look here, Cap."

Almost jealously I showed him the slamband. The *inertite* needle had been broken off. When I had pressed my button, the needle hadn't touched her skin. When I had pressed my button, Merlin may have been laughing, thinking of me, waiting for the weight of the *inertite* I would send her to depress her bed. When I had——

I heard my voice again, scrambled, jagged, cold, like crushed ice. "I'm going to kill whoever did this, Cap. Hear me; I'm going to kill him."

The door opened and there was Tam, the ship's detective. His pale eyes photographed the room, the captain's face, mine. "I get

around," he said. "It's my job. I saw you and Miss Gale a while ago, Petey. So—I'm sorry."

And he was. Tam is all right. "See anything else, Tam?" I said.

"Nothing but Fletch. Making like a tomcat in the stairwell with that bitch from 32. His privilege, I suppose. Why?"

I showed him the slamband. He took one look, then looked back to the all-over death that flowered out from the dent in the wall. "A killing, is it?"

"And I want the killer, Tam," I said. "Give him to me when you get him, Tam."

The pale eyes warmed a little, but he said: "I can't do that, Petey. And I'll need that slamband."

"You can't have it until I've worked on it."

A cleanup detail was already standing outside the door, shifting its feet. It had to be done—a spaceship is no place for an infection to start. But when I saw the plastibags and the flamers I began to lose my mind again, to tremble and make jerky movements. *Leave it all alone*, I wanted to shout at them—*don't put Merlin in those things—don't touch her—don't sear her to ashes and gas . . .*

"You'd better turn it over," Stanard said softly, but with iron edging his voice. "Petey, I hate to do this. But there's a letter in my hands that puts this whole business in a damned odd light. I think

you'd best co-operate with Tam. Or else I'll—issue the necessary orders, Petey."

I stared at him. What he said made no sense. I knew only that I wouldn't surrender that slamband, orders or no orders. I was essential to the life of the ship; there was no possible substitute or pinch-hitter for me on board. I began to back through the door.

"I'll try it my way first," I said. "This is flesh and blood and that's my field; Cap, my field. Tam, doctors are detectives, too, in a way, don't you forget that. Stay away from me until I'm through. Stay away from my quarters."

"You're doing yourself a bad turn, Petey," Stanard said.

"It's been done," I said. "I've had it. You'll get your slamband. But you'll wait for it. You'll have to."

I said: "Goodnight, gentlemen," in a voice as ironical as you please, but I ran my nose into the door on the way out. I was blind with scalding tears.

I could hear someone else weeping hoarsely as I passed Nyra's door. She was always good at that. And that *she* should still live . . .

In my cabin, I became sick as the kid had been. A doctor shouldn't, but any lover would.

Finally I took out the slamband and examined it, through a fog that kept gathering in my eyes and roll-

ing down my cheeks. At last I had to go into my bathroom and plunge my face into ice water. I was really blind when I stood up—you can see that I was something less than a doctor right then, or I would have known what a shock I was giving my optic nerves—but the moments during which I had to wait inside the basin waiting for my sight to return were good for me.

When I came back into the cabin proper, I had no tears left. My cheeks and my fingers and my heart were icy.

The black stelson slamband was intact, save for the needle. I cleansed it carefully, making sure that I was not obliterating possible fingerprints, handling it as I had before, with cloth, gently. The strap was set to the last notch. I tried to remember: had Merlin worn it on her wrist, or on her upper arm? I couldn't remember having seen it on her at all. Probably, then, she'd worn it on her leg, just above the knee. The set of the strap confirmed that, more or less.

The needle had been snapped cleanly, not filed or dogged over or jammed. To do that, the killer had had to dismantle the pistons, for both needles hung well back in their grooves and would come out normally only in response to the buttons in my cabin. The killer, then, had a working knowledge of slambands—which eliminated the average traveller, who was told

that tampering with the bands would result in an explosion.

I had scraped the bits of flesh and fine limb hair from the band before washing it. I examined these now. It is impossible to describe the detachment with which I did this. All humanity in me was far aspace; there was only an educated beast crouching at my desk.

But I found nothing. No who; no why; no when or where. Nothing but how, and that had been evident from the moment I had first picked up the slamband from the bloody jelly.

After two hours I re-wrapped the slamband, put it in a cylinder, and tubed it down to Tam's lab. He screened me a second later.

"Thanks for being so careful, Petey," he said quietly. "I'll do my best with—what you've left me." He was reaching toward equipment even as his screen faded.

My eyes burned. I'd smoked myself into a stupor. I lay down on my bunk. Stanard and Tam had been kind and decent, and I'd done no more than waste time. Now that Tam had the band . . .

I closed my eyes over my thoughts. Had Merlin mentioned knowing anyone on the ship? Only Jackson—no, surely not Jackson. But who then? My thoughts returned to the rabbit man.

Then to the slamband.

Merlin . . .

A weak light was playing over

my closed eyes. Goran III, inflating in my port. We would land in a few hours. I would get up and make my final round, to see how my shots had taken. Then we'd go out; I would show Merlin the alabaster towers, the chattering native section, the shielded and unapproachable continent where the beings from Goran IV, in exile, held themselves aloof from all the rest of the galaxy. I would kiss her and we would be married.

Sleeping is practice for death. That night I became an expert.

WEDNESDAY, 11.22 A.M., SHIPTIME.

I began the final round that morning like a robot interne; the sleep hadn't helped. I moved automatically, doing what I had to do, avoiding thinking about that moment to come when I would have to pass Merlin's cabin without stopping, and listen to the silence welling out of it.

Ingres and Beetsy both seemed to be under considerable strain. I felt a sort of repressed, uneasy sympathy; neither of them would meet my eyes for more than a moment at a time, and they submitted to my tests with no chitchat other than a few monosyllabic platitudes. At another time I might have been more sensitive to it, and hence more curious, but now it barely reached me. I was numbly glad not to have to talk.

My old timer told me briefly that he was all right, just running the usual post-shot fever. How was I? The brief question from him touched me more than a thousand effusions from someone else would have—but I could not afford to have any emotions now. I said stiffly that I was all right and went on.

Mother was convinced that baby was going to die. I assured her that it was only post-shot fever. She didn't believe me. I didn't care.

Before I reached Nyra's cabin my nostrils began to twitch. I smelled something damned familiar—as familiar and as characteristic as the odour of cinnamon or citrus oil or vinegar. But half my brains were out of circuit with grief. I couldn't place it, though I tried without much interest.

It was very powerful right in front of Nyra's cabin. I buzzed long and loud. When the door slid back the odour came rolling out in great waves.

Larry Stone stood in the partly-open door, blocking the way. His face was damp, and his big shoulders hunched when he saw me. I said expressionlessly: "Hello, Stone. Did you find Nyra?"

"Find—Nyra?"

"That's what I said. I hadn't the time nor the spirit to go scouring the decks for her after what happened. Did you find her, or is she still sprawled in some bunk in the crew's quarters?"

It was brutal, but what could I care then for the puppy's feelings? Curiously, he took no offence—perhaps he had learned a few things about Nyra. He said: "Yes. Sorry. I found her. She's all right."

"Better let me check her. She shouldn't be under *inertite* this long. Take only a moment."

"She—I believe she's out strolling the deck someplace. I gave her the *restorite* shot myself." He turned slightly to wave at some apparatus on the cabin desk. "I knew how things were with you, Doctor Miles. I felt I shouldn't bother you, and I've had considerable experience in physical chemistry."

That was the odour. I said: "She's just coming out of it now?"

"Yes, but she seems all right. I'd appreciate it if you waited to check on her. She's——"

"I know how she is," I told him. I could just see Nyra awakening reluctantly at noon after a long night, part of which she had spent in the wrong bed. But there was nothing I could do about that. "I'll have to check, Larry, if you please. It's my responsibility, and the line's. Besides, I've seen some bad things happen, even in experienced hands; you'll understand that I can't trust a physical chemist to be a doctor, too."

He didn't move. "I can assure you——"

"I can't take your assurance."

My patience was beginning to evaporate.

He moved then, just enough to get himself more firmly in the way. "I've paid for privacy," he said coldly. "I'm sure I can demand it from the captain."

"Fine," I said, reaching for the buttons beside the door. "I'll buzz the captain right now." While I was at it, I buzzed Tam, too. Even the wolverine that was eating out my heart hadn't been able to prevent me from noticing certain things. One of them was the odour, which was that of *restorite* in the second, *not* the third and final stage of its distillation. If Nyra had been shot full of that stuff, she was dead; if she hadn't, then she was still under wherever she was, which was certainly not strolling the deck. And if she was still under, then it had not been Nyra I had heard crying last night; it had been *Larry Stone*—perhaps after he had killed her with his shot of under-prepared *restorite*? Or after he had been deserted for some crewman for the night?

In an incredibly short time I was able to introduce Larry to Captain Stanard and to Tam—for some reason—to Ingres. Sullenly Larry stood back to let us in. The Cap's face was a mask of iron; Tam studied us alternately, first me, then Larry, then me again.

On the desk an atoburner flamed under a squat tripod, and a retort dripped clear liquid into a test tube.

Nyra was nowhere in the cabin.

Stone sat down on the edge of the bed, looking like a cornered animal, head down, eyes gleaming up.

"So she went strolling," I said. "The dead go strolling. Or else she's here, still alive, but invisible."

His lips started to tremble; he pressed them together and stared at the floor. Tam's face took on a professional hardness. He said: "Where's your wife, sonny?"

"I don't know."

"Then why are you distilling *restorite* for her?"

"She has to be on board ship somewhere," he said. "I wanted to get her back in here before she was found. I was ashamed—is that so strange? If she doesn't care which bed she sleeps in any more, I do. I wanted to get off-ship with her without my horns showing to everybody on board. But I haven't been able to find her. Why haven't *you* found her? It's your responsibility."

It was, too. Larry's explanation was hard to listen to, but it held water.

That is, it held water to me. But Stanard's face did not alter, and Tam kept looking at me now and then with that inexplicable searching expression. The Cap said:

"Mr. Stone, I'm not entirely satisfied. For one thing, there's a letter in my possession——"

That letter! I hadn't thought of it again until now. I still didn't understand it.

But Larry Stone did. He seemed to melt. He slumped forward and retched slightly, his face in his hands. "That letter," he moaned. "You've read it. Oh, my God, why should Nyra write such a letter? She told me about it—she read it to me—she *laughed!*"

"I've read it," Stanard said. "So you can understand that, because of the letter, I have to regard our failure to find her here as very serious."

He swung on me. "Just in case you're ignorant of all this, Petey—and I hope to God that you are—Mrs. Stone sent me the letter yesterday, after we were a few hours out. It was rather incoherent, but in essence it said that she feared a violent death at the hands of her husband. However, she didn't say which husband she meant—and we have two of them on board——"

"Oh," I said. It seemed funny to me. I had already lost my life. I had nothing left me that any human force could threaten. But now I understood why Ingres was here. The Cap had expected, if things turned out for the worst all the way around, that he would have to take both of us—Larry and me—into custody.

"I think I know where Nyra is," I said remotely. "Fletch's cabin. We've left Fletch pretty much to his own devices. According to Tam

here, Nyra turned out to be one of his devices. I'm surprised I didn't think of it before."

Tam snapped his fingers. "So am I. Ingres, take a run up to Fletch's cabin and check. But go easy—just take a listen at his door, maybe a peek. Fletch is in bad shape. No need to turn him upside down, if they're there——"

Ingres nodded and went out without looking at Stone.

"But Fletch isn't *really*——" I started to say, dully.

"In the meantime, Mr. Stone," Tam broke in briskly, "one more question. Your arm is bare. Where's your slamband?"

That got to me. I jumped. I hadn't noticed. But Tam, of course, was one of the world's most expert noticers.

It got to Larry, too. He screamed, a high, pure note like the E above high C of a *castrato*. He was up in a flash and clawing at the drawer of the wall cabinet at the head of the bed.

Tam shot both knobs off the drawer so fast that they seemed to explode simultaneously. Larry snatched his hand back and looked at it as if to make sure he still had it.

"The next one's for you," Tam said flatly. "Blurt it out, sonny. Did you fix that slamband?"

"Fix it?" Larry moaned. "Fix it? My God, it was *my* slamband she was wearing! I didn't touch it.

I didn't know it had failed until I——"

He staggered suddenly into the bathroom and lost his breakfast. Tam let him go, naturally, but not out of sight. After a while he came out again, talking in a slow, sick voice even before he sat down.

"When I came out of the *inertite* I went looking for her. We'd had a quarrel before the needles hit us. She walked out—said she was going to Miss Gale's cabin to borrow something to read. So I went there. And I found——"

His mouth jerked shut; his arms corded as he balled his fists and drummed them on his knees. He needed a doctor. I didn't volunteer. "I found what you found," he gasped. "Christ, you *saw* it—blood and bone and hair—you *saw* Nyra——"

"Nyra!" I echoed, amazed and, for some reason, furious. "What makes you think it was your wife? It was——" And I stopped short. My heart seemed to charge up and explode behind my eyes. And suddenly I remembered—I *knew*!

Among the blood, the shredded flesh—*there had been hair on that slamband!*

Glory burst in my brain. "Merlin!" I cried. "Damn you, Stone—where is Merlin?"

Tam's eyes flew to me, sharp and sad—then suddenly wide with utter blank astonishment.

"In there." Stone choked, and

pointed to his wardrobe closet. "She's in there——"

I took a swing at him, missed, bent head and shoulders into the closet and started to cry again.

Only when I had Merlin's rigid body in my arms did I think again. "Cap!" I said hoarsely. "Ingres—we sent him to Fletch's cabin—Fletch'll kill him—for God's sake, move—it was Fletch who fixed Stone's slamband——"

Tam and Stanard turned white and vanished. Stone was weeping convulsively. A second later, the ship was ringing with Stand to Quarters. The Cap knew Fletch, all right.

I carried Merlin to my quarters.

She was still unconscious, of course. *Inertite* keeps you under indefinitely. But the space-fixing effect—which makes *inertia* what it is in interstellar travel—wears off very rapidly, and after that the drug is simply an inferior inducer of suspended animation. I could only hope that she was still alive.

But I had to believe that. I measured the *restorite* and injected it.

She half rose to meet me, frightened by my grim face, the strange surroundings. But she was equal to it. What a wonder she was, wonder upon wonder!

"Peter dear," she said, grappling to my shoulder for support. "Have you gone and compromised me?"

The next half hour is nobody's business. It happens that way; and we had a lifetime for explanations. If it was a girl, we would name it *Starling* . . . that was our whispered agreement.

But one impulse I could not resist, when we finally got around to talking with words. I stroked her soft, dark head, and said: "We had an accident and a woman was killed. I was crazy for a while, but at the last I knew she wasn't you."

She made a pretty frown. "Wasn't me, Peter?"

She didn't understand, of course. I smiled, took a wisp of hair between my thumb and forefinger, and tugged.

"Oh!" she said indignantly. Then, in a tiny voice: "Hell, you had to know sometime. As if you didn't already."

"I knew the moment I saw you. Any physician would. But it's so common, I just didn't think about it again—you Earth-bound people don't realize how normal it is among spacemen. It must have happened when your father was spacing, and took you along as a kid——"

She nodded and grabbed it back from me, put it expertly on again. "Think of my public," she murmured.

"I'm your public," I said. I traced the smoothness of her leg with one finger.

Radiation. Space-baldness. An

occupational hazard with early hyperspacers, before the perfection of the Sorenson shields. No head hair; no body hair.

No hair to find on a slamband had my Merlin.

And it had been right under my nose all the time.

At the end, just before landing, I talked to Fletch. Not because I wanted to, but because he would talk to no one else. Me he trusted—why, I don't know.

I brought him a cup of coffee for an excuse. He was sitting in his cell, looking out at the black and silver and the nearing globe Goran III. It was a big Florida orange now, cloud-laced, sea-sparkled. We were blasting toward nightside. Fletch drank the coffee in silence, and at last looked at me.

"Nyra wasn't worth it, Fletch," I said.

"I know that," he said. "Larry Stone is okay after all—not that I like the bastard, but I'll admit he's okay. I was potty to credit what she told me about him. Beatings and so forth. But I was potty anyhow, sweetheart. Everybody agreed on that."

I shook my head. "Not everybody. I knew that breakdown of yours was a phoney—but it was all the more reason to put you on the shelf, as far as I was concerned. It was the expert job on the slamband, and Tam's spotting you and

Nyra in heat, that really did for you. Pretty clumsy, Fletch."

"Maybe so, lover boy. Ever since you told me that the future is just a series of cataclysms, I've been getting myself used to the notion. But what I want to know is—what the hell *happened*? I had Larry's slamband fixed but good, and Nyra had sent the Cap her letter to make it all look like a murder attempt that back-blasted. And then——" his face was white and loose—"then——"

"Let it lay, Fletch. I thought it was Merlin for a while. So must you have, and blasted in orbits trying to figure it out. Now you know it was Nyra. So I know how you feel."

"But *what the hell happened*?" Fletch repeated plaintively. "Nyra got Stone out of the cabin for a walk and I did exactly what we'd planned. Her slamband was supposed to be on the bed, with its strap lengthened for her leg. Stone's was the wrist-set band on the desk. I jimmied the wrist-set one on the desk. So *how*——"

"I'll tell you what happened, Fletch——" And I told him what Larry Stone had told me. "After Larry and Nyra came back from that walk, Nyra went in to take a shower. While she was in the bathroom, Larry decided to put on his band before going to sleep so he wouldn't have to get up when the on-bands alarm sounded. He

put on Nyra's band because he was lying in bed and it was nearest at hand, and because he was as miserable as a kid cuckolded by his first love can be. Then, because he's a considerate kid, he reached over and got his own band from the desk and lengthened the strap and put it on the bed beside him, ready for Nyra when she came out. Then he went to sleep. He loved her, Fletch, and that's what happened."

Fletch stared out the port, face rigid.

"You loved her, too, Fletch—maybe still do?"

"Like crazy—the beautiful bitch! All I was to her was a hot playmate and a perfect way to get rid of a used-up husband. I'd have been dropped soon enough. I know that now. And it doesn't help one God damned bit——"

I sighed, and went on: "Later, when the alarm went off, Nyra left the cabin so she wouldn't get messy—or killed—when Larry went splash. She woke him up to get in some last digs, and told him she was going to Merlin's cabin to borrow something to read; then she evidently decided she might just as well do that as stand around in the corridor, waiting for the needle. Merlin had barely opened the door and said hello when the needles hit and she dropped. A second later the HS drive cut out, and Nyra, with no shot of *inertite*

in her, was in effect flung through the door and against the wall at twice times the speed of——"

Fletch groaned. "Let *that* lay, honey!"

"Okay, Fletch. For good. Well—then I made my rounds. I gave Larry his shots; and the first thing he did was go looking for Nyra. Somewhere along the line he passed me and the kid I had helping me, unnoticed; he found—Nyra—and he found Merlin, lying beside the door.

"His actions at that point need a little explaining. Before Nyra sent that letter to Stanard, she had herself a little fun reading it to Larry. She always did that kind of thing well—probably made quite a production of it—and it put Larry into a long, flat spin. Probably his first inkling that Nyra was—the person she was. As you said, he's a big, decent kid—wouldn't suspect a cannibal that was weighing him.

"Anyway, when he found Merlin, he knew that the—other—must be Nyra. That knowledge—and the sight itself—threw him out of gear. He was terrified that discovery of her death, along with the letter, would make him out a murderer. So he picked up Merlin and carried her back to his own cabin through the emergency corridor, just about the time I was sending the kid on ahead to her cabin. He put her in his closet—even tried to make her comfortable with pillows—and

worked like the devil all night and morning making *restorite* for her."

"Cool," Fletch nodded, understanding.

"If a sort of psychic catatonia can be described as 'cool'—yes. He was planning, of course, to revive her before we landed and force her to walk off-ship with him as his wife, veiled probably. Then he'd let her go and vanish into the exile continent, or ride the skins out to the Edge."

Fletch managed a smile. "He didn't have a chance. For one thing, the Goran quarantine station would have looked under that veil . . . God! Like you say, catastrophe—one after another after another."

"A catastrophe is a surprise," I said. "Not all surprises are unpleasant. In the old days they'd have shot you. Now you'll just get a Class A conditioning. You'll forget this—every bit of it. Maybe you'll wind up a farmer. Does it sound good?"

He turned from the port and looked at me with eyes like twin gates to Hell. "I'll really forget?" he whispered.

"Yes, Fletch." I was gathering his personal belongings. "We'll be landing in a moment. Ready?"

He stood up slowly. "Sure—friend," he said. "Let's go."

Tam was waiting outside the cell, hand in pocket. He took the hand out empty when he saw Fletch's face. We joined the group in Control. A very intent Ingres was juggling the *Starling* toward the quarantine station; Merlin was watching him, vastly interested. Beetsy was at the screen, chatting with the stationmaster.

Fletch sank into the co-pilot's seat and stared hungrily at the bright surface of Goran III. Stanard looked at me, and then went over and sat down beside Fletch. They didn't speak much, but I learned something about Stanard then. He had loved Fletch. I could tell, because something he said made Fletch turn and smile.

And Stanard had said nothing, done nothing, from the moment Fletch had staged his breakdown until the end. That's why Stanard is captain of the *Starling*.

As Ingres goosed the ship to within yards of the graving dock, and tractors and spacesuited men started toward us, Merlin walked to Fletch and touched his forehead lightly. She, too, understood.

That's why Merlin is my wife—and why our son is named for a murderer.

BOOKS

by **ALEC F. HARBY**

THE SCIENCE BOOK OF SPACE TRAVEL by Harold Leland Goodwin. Harrap & Co., 10s. 6d., 182 pages. Illustrated.

For a long time now I've been hoping to find a book which I could pass over to anyone wanting to know all about "this rocket business," knowing that not only will they be able to read it but will enjoy reading it. And after reading it they will, at least, know better than to ask: "If there's no air up there then what does a rocket push against?"

The scope of this book is big—as the subject matter is big, and to the purist something may have been lost by the necessary compression. The initial chapters are familiar; progress up to date with V.2's and Vikings, the boundaries of the atmosphere, the proposed space platform, but all are dealt with in an easy-to-read, easy-to-understand manner ideally suited

for those who are interested but who are making an effort at self-education and who haven't, perhaps, the necessary mathematical or technical background to absorb the more complex calculations and equations.

From the familiar the author takes us into the realms of the unknown, but highly probable; space sickness, psychological upsets, the probable effects of free fall, the dangers of boredom and most of the hazards which our future spacemen will, one day, have to face. Some guesswork is included about the possibility of life on other worlds, but it is intelligent guesswork founded on known chemistry.

For those who think that the Solar System is a small place, a chapter is included listing forty-five worlds, planets, satellites and asteroids, all of which are our family neighbours in space. Post space-flight civilization, when it

comes, will have plenty of room to move round in. If the Solar System isn't enough, then there are always the stars, and, having dealt clearly and understandably with Einstein's famous equation which sets the speed of light as the top-limit, the author has fun in describing space warps, what they are and how they could possibly work. Final speculation deals with Charles Fort and the U.F.O.'s, and the book ends with a comprehensive glossary of essential terms.

Buy two of these; one to give to that pest down the street who is always bothering you with questions, and one for yourself.

You'll enjoy it.

REALITIES OF SPACETRAVEL
edited by L. J. Carter. Putnam & Co., 35s., 431 pages.

It was a coincidence that this book came in for review at the same time as the one above, but it isn't coincidence that they appear in the order they do. The first could be called a primer, a book for general consumption, while this is far from that. It is a book written by experts for those with a good background in mathematics and general science.

Sixteen experts here present the known facts about travel in space, outline the problems still confronting the successful conquest of a new environment and describe how these problems are slowly

being solved. The whole field is covered in this book, from the initial stages of leaving the Earth and its atmosphere, combating gravity, the construction of an artificial satellite, the history and development of rockets, the probable atomic rockets, and the dangers to be expected and overcome during interplanetary flight, together with an analysis of physical conditions on the Moon and Mars.

The twenty-four chapters all originated as papers presented to The British Interplanetary Society, and they provide an illuminating and comprehensive survey of the entire field of space flight.

Like most books of its kind, anyone unable to follow the algebraic equations must feel a certain frustration; a sense of loss. This is unavoidable because this is that kind of a book. It is hard, down-to-earth science and logical scientific probability, and the equations aren't just window-dressing; they are there for the express purpose of proving a point and justifying design. But even skipping the equations it is a fascinating book. There is romance to be found in the dustiest of scientific papers, and these papers are far from dusty. They are alive and deal with what some people regard as the greatest scientific adventure yet known.

A "must" for the serious minded.



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FLYING TO 3,000 B.C. by Pierre Jeannerat. Hodder & Stoughton, 16s., 230 pages. Illustrated with sketches and photographs.

Archæology is a fascinating subject which all too often is stripped of its fascination by dry-as-dust presentation. In this book it is presented as it should be, as something alive and with bearing on modern times. In his travels through Egypt, Jordan and Iraq the author deals with both the treasures of the past and the political strains of the present; and points out how both have a certain effect on the other.

His description of dancing girls painted on the walls of the pyramids, the discovery of the Cheops' boat and the excavations at Karnak and Sakkar join hands with his descriptions of the nationalism of Egypt which uses the glories of the past to promote ambitions for the future. His account of one of the holiest places on Earth, The Church of the Holy Sepulchre, is enough to make any Christian writhe with

anger that it should be such a disgrace to Christendom. The reason why it is such a disgrace is a shameful example of shoddy politics and self-seeking.

A good account is given of the Dead Sea Scrolls and an all too short account of Jericho, probably one of the oldest cities on Earth. From Jericho he takes us to Baghdad and the remnants of the Assyrians who once ruled over the fertile spot which could be the original Garden of Eden. The book ends with a delightful piece of satiric fantasy.

The only fault I have to find is one which applies to any interesting, well-written book. It is too short. In his chase backwards through time the author has tried to cover too wide a field. Linger in Egypt he races through Jordan and Iraq and, having given a tantalizing glimpse of the ancient wonders to be found there, is on the move again back to the present time, leaving me, for one, still dreaming of the past glories of ancient peoples, kings, warriors and intrigues, of huge palaces and strange monuments.